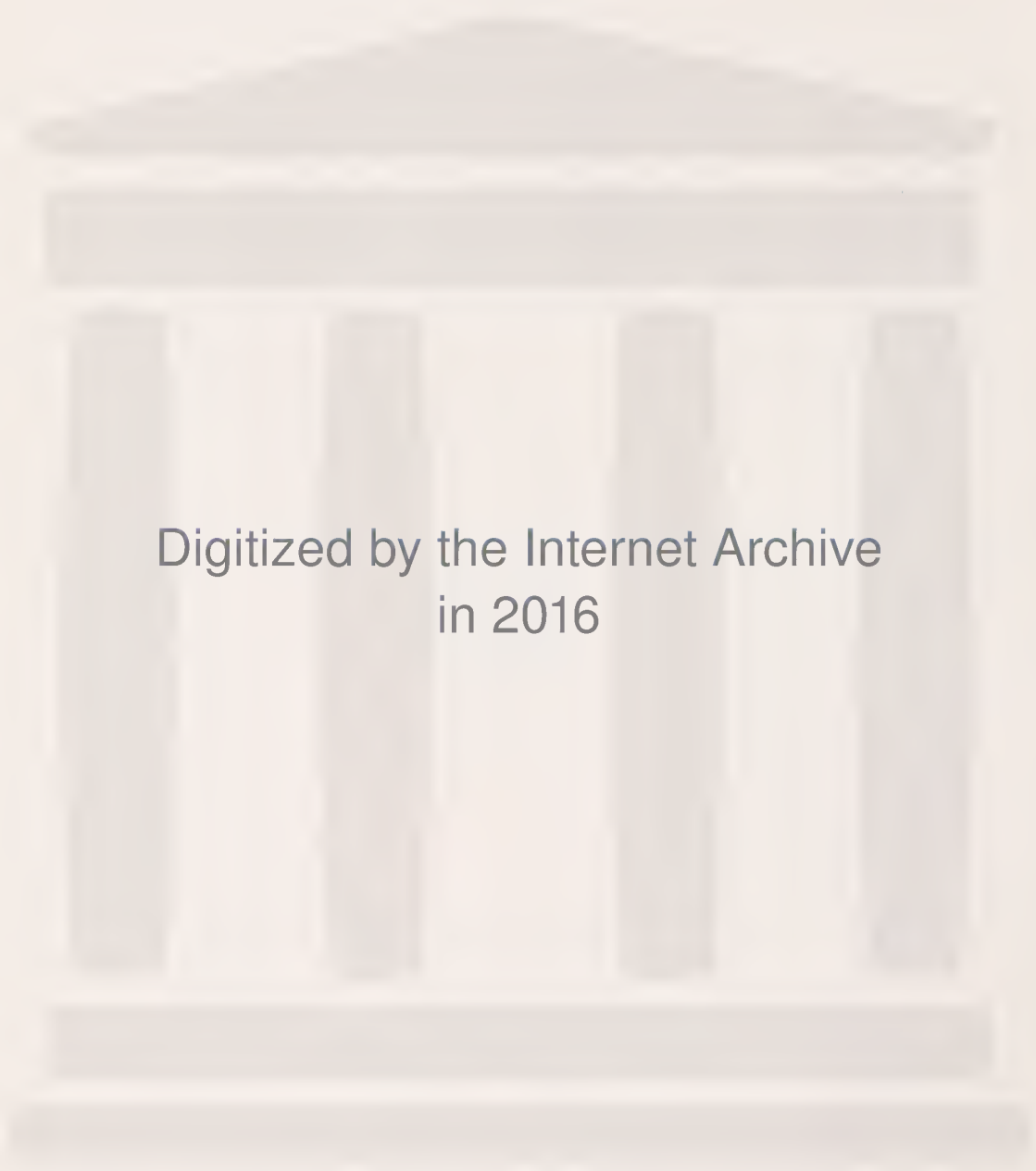


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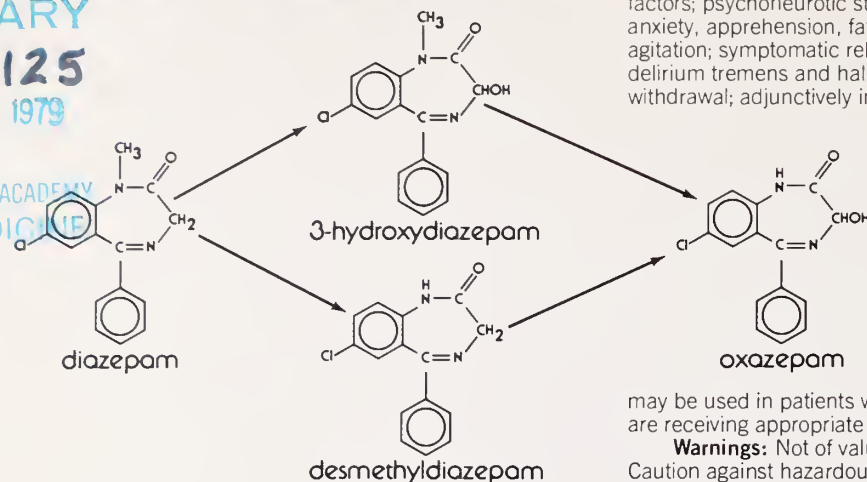
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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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The Nebraska Medical Journal

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JANUARY 1977 VOL. 62, NO. 1

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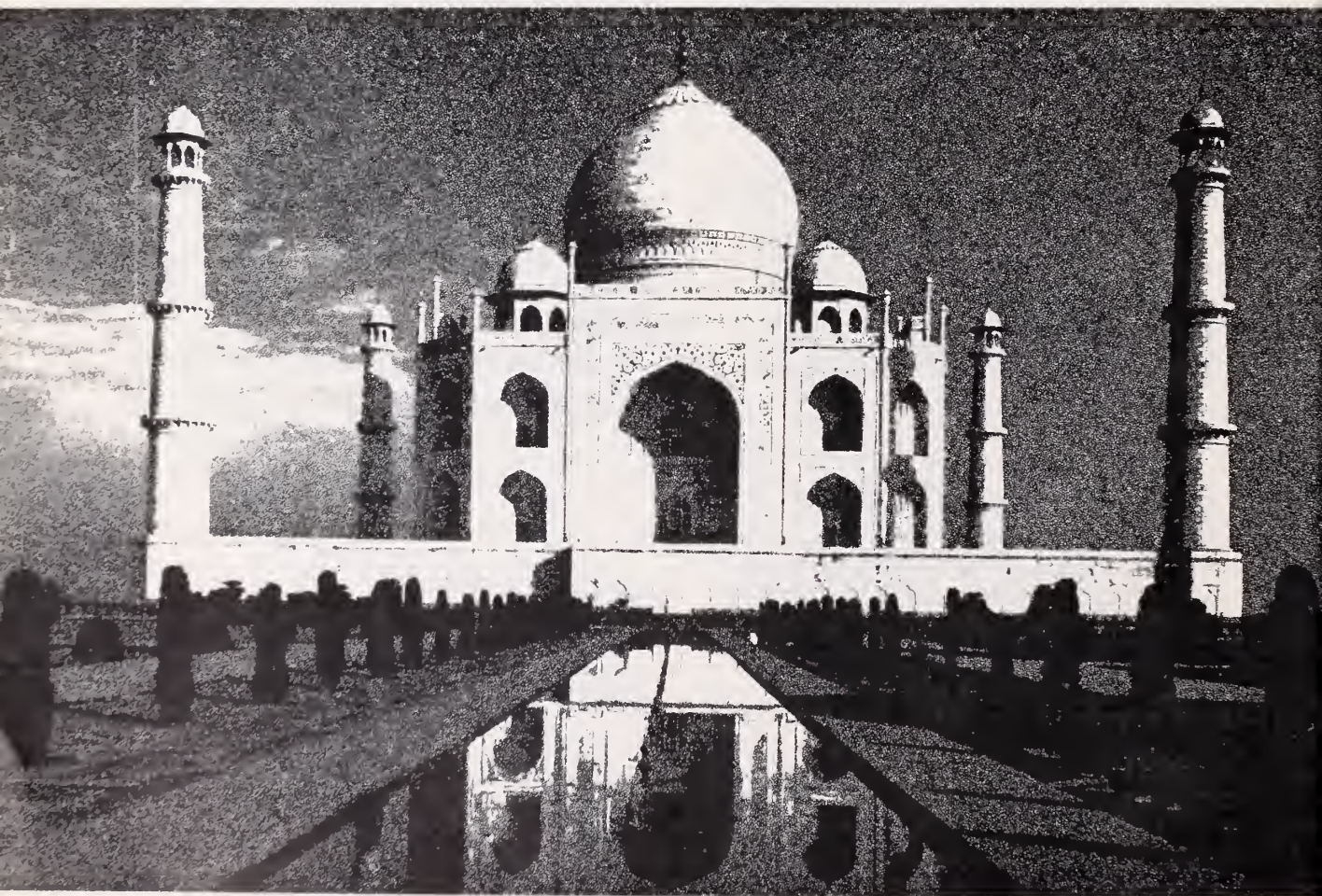
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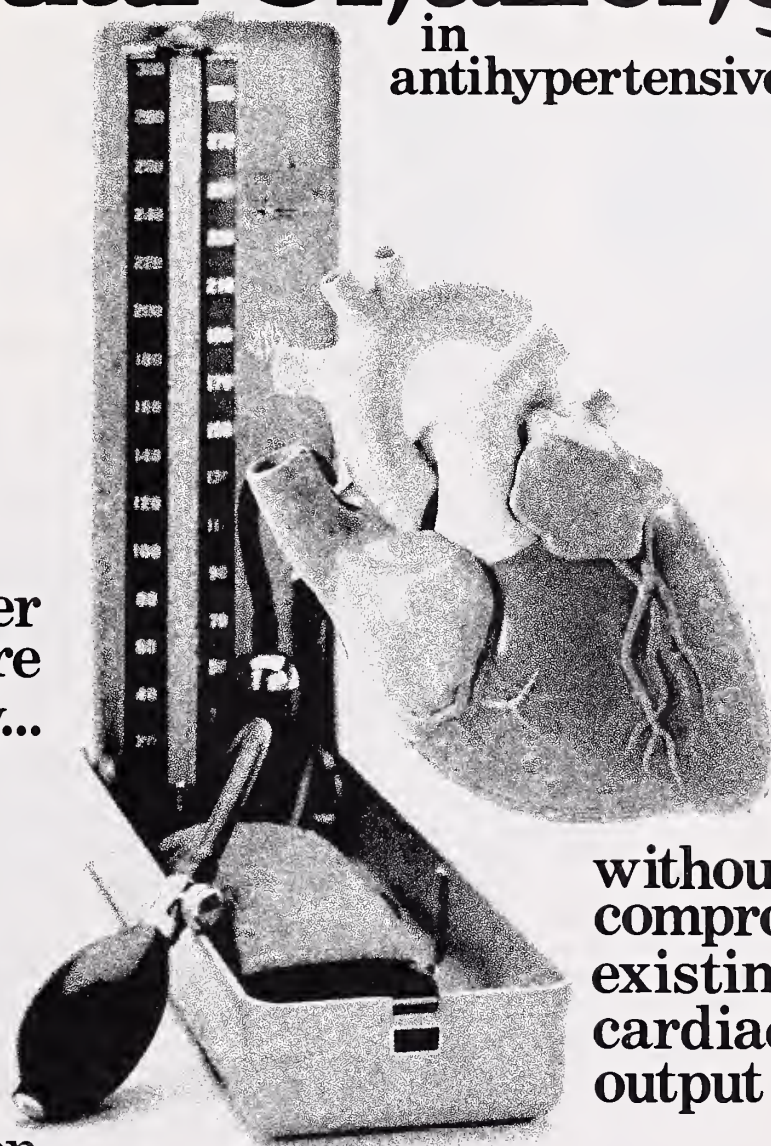
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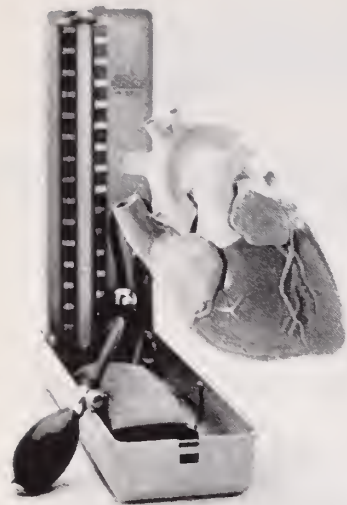
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Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or

cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Use in Pregnancy: Use of any drug in women who are or may become pregnant requires that anticipated benefits be weighed against possible risks; possibility of fetal injury can not be excluded.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia.

Allergic: Drug-related fever, myocarditis.

Other: Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third month of therapy; increased dosage or adding a thiazide frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

How Supplied: Tablets, containing 125 mg methyldopa each, in bottles of 100; Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

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Edwin Hughes (Dr. Ned) Cassem is Associate Professor of Psychiatry at Harvard Medical School in Boston, Mass. Dr. Cassem's articles on death and acceptance of death have been widely published. He is Project Supervisor for the Pastoral Encounters with the Disabled and Dying, Youville Hospital, Cambridge, Mass., and Boston Theological Institute. He is Director of Liaison Psychiatry at Massachusetts General Hospital in Boston. Dr. Cassem is a Trustee of Creighton — Nebraska Universities Health Foundation, member of the Editorial Board, Heart and Lung, Canadian Institute of Religion and Gerontology, and Chairman of the Jesuit Council for Theological Reflection.

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Limited Surgical Excision as Basis of Comprehensive Therapy for Cancer of Breast
— O. Cope et al (Massachusetts General Hosp, Boston 02114) Am J Surg 131:400-407 (April) 1976.

A comprehensive program of therapy has evolved with collaborating roles for surgery, pathology, radiotherapy, and chemotherapy. This experience includes 131 patients with breast cancer treated since 1956 by limited excision of the cancer. The tumors of ten patients were noninvasive or sluggishly so; the patients received no further therapy. Because of the invasive character of their tumor, 121 patients received heavy post-operative irradiation. In 12 of these 121, the irradiation was followed by immediate and prolonged chemotherapy. It is too soon to judge the effect of the chemotherapy, but survival rates of those treated by limited excision and primary irradiation compare favorably with those of patients treated by radical mastectomy.



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See next page for brief summary

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Indications. Tedral, Tedral SA, and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal or perennial asthma.

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Warnings. Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

Precautions. Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

Adverse Reactions. Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

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Leading Points in Childhood Intussusception — S. H. Ein (The Hosp for Sick Children, Toronto) J Pediatr Surg 11: 209-211 (April) 1976.

Children whose intussusception is caused by a specific pathologic lesion are harder to diagnose and have a higher morbidity than those with the idiopathic variety. Thirty-one such cases found in a series of more than 500 intussusceptions were analyzed. The average age of these children was greater than is usually found in most cases, and the duration of the signs and symptoms was also longer than is usually seen. Almost 50% had advanced small bowel obstruction. Fewer barium enemas were done (50%) and none was successful in reducing the intussusception. There was a higher number of ileoileac intussusceptions in this group. The most common leading points were Meckel diverticula, polyps, and duplications. All patients with leading points required operation; three fourths had a bowel resection performed. This study of 569 cases suggests that older children with intussusception and children with recurrent intussusception do not necessarily have leading points causing their intussusceptions.



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Track and Field Star, Jesse Owens to speak

Tuesday, May 3

at the NMA 109th Annual Session

Today, 40 years after earning the title of the 'World's Fastest Human' in the 1936 Olympics, Jesse Owens continues in the front ranks of athletes. He is committed to making available better and more educational opportunities for all young and has established the Jesse Owens' Educational Foundation. In 1976, President Ford presented Owens the Medal of Freedom, the highest honor the United States can bestow upon a civilian. Now residing in Phoenix, Ariz., this Olympian serves on the Boards of Memorial Hospital, National Conference of Christians and Jews and Boys Town. He set world records in the dash and brood jump . . . and his brood jump record stood until 1960, same 24 years.



Hear Jesse Owens at the NMA Subcommittee on Athletic Injuries' Athletic Medicine Luncheon

Registration Forms for the Session and Ticket Forms
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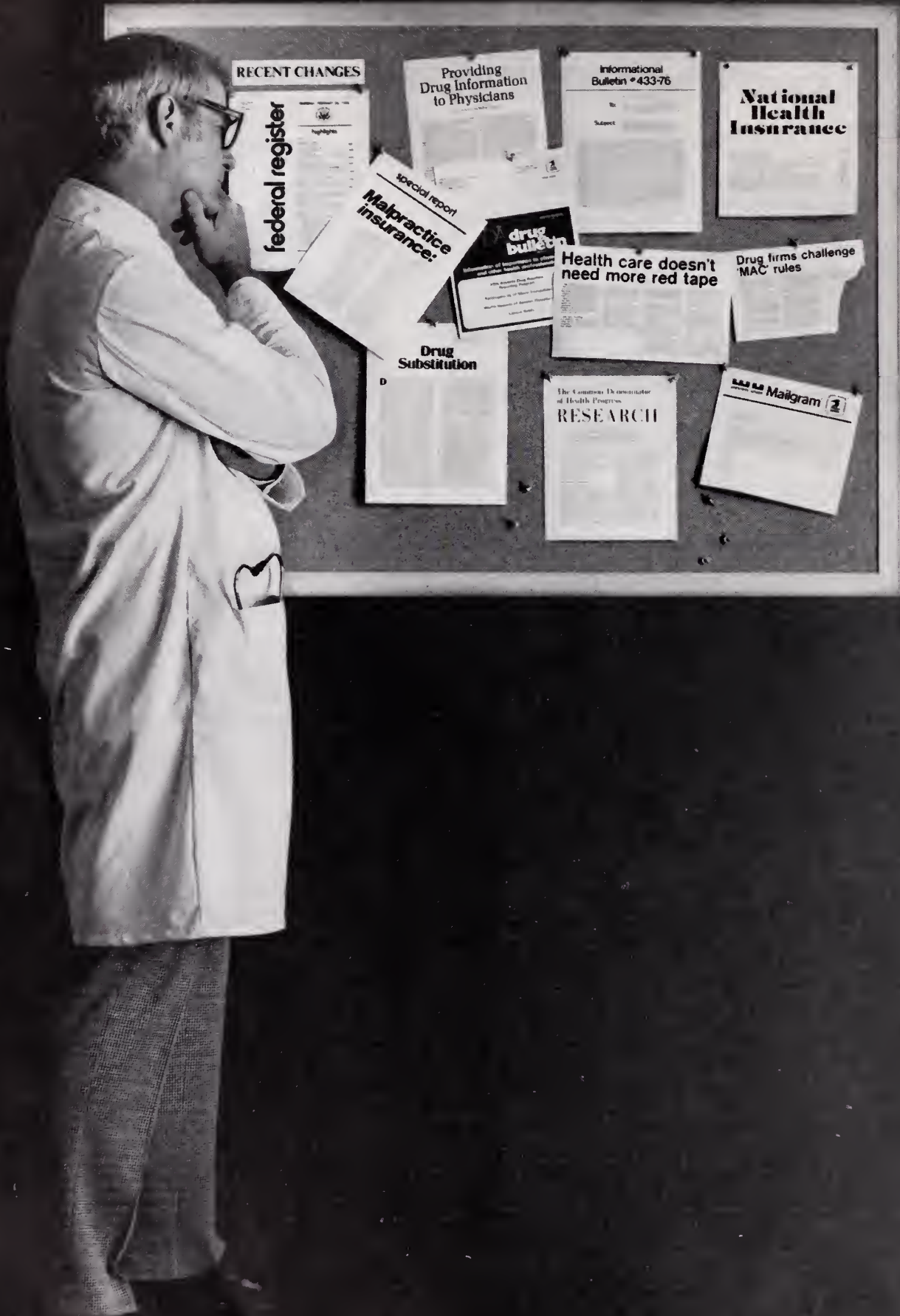
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Mailgram

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



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Ovarian Hemorrhage Complicating Warfarin Sodium Anticoagulant Therapy — S. Matseoane et al (Harlem Hosp Center, New York 10037) Am J Obstet Gynecol 124:766-767 (April 1) 1976.

Three cases of women in the reproductive age group who received warfarin sodium therapy for pulmonary embolism are presented. The therapy was complicated by rupture of ovarian cysts with intraperitoneal hemorrhage necessitating exploratory laparotomy. The possibility of intraperitoneal hemorrhage must be considered in patients with abdominal pain and a history of anti-coagulant therapy.

Controlled Study of Therapeutic Portacaval Shunt in Alcoholic Cirrhosis — B Rueff et al (Hopital Beaujon, Clichy, France) Lancet 1:655-658 (March 27) 1976.

A controlled study of therapeutic end-to-side portacaval shunt was carried out from 1968 to 1971 in 89 patients with alcoholic cirrhosis. Recurrent gastrointestinal bleeding was less common and chronic hepatic encephalopathy was more common in patients with shunts than in patients without shunts. The survival rate was lower, but not substantially, in patients with shunts. No overall benefit of the operation could be seen in cirrhotic patients with the selection criteria and the type of surgical shunt used in this study.

Reduced Active Thyroid Hormone Levels in Acute Illness — A Burger et al (Hopital Cantonal, Geneva) Lancet 1:653-655 (March 27) 1976.

In acute and subacute disease, the active thyroid hormones, triiodothyronine (T_3) and tetraiodothyroacetic acid (tetrac), are decreased while serum thyroxine (T_4) levels tend to be slightly reduced. Conversely, the inactive metabolite, reverse triiodothyronine (reverse T_3), is increased indicating a diversion of T_4 metabolism from an activating to an inactivating pathway. With convalescence the serum levels of T_3 , tetrac, and T_4 recover while reverse T_3 decreases to normal. These changes occur without significant hormone, indicating maintenance of euthyroidism throughout disease.

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THE NEBRASKA MEDICAL JOURNAL

SESQUIPEDALIANISM:
THE DOCTOR'S DISEASE?

One patient has trouble while performing ambulation, and another finds tandem gait difficult.

I knew ambulation and found it easily; tandem gait was not in any of six medical dictionaries nor in texts on internal medicine or neurology, but it was defined for me over the telephone by a well-informed friend.

Ambulate means walk; and tandem gait is the same as walk a straight line, that's all. I'm not prevaricating; prevaricate means lie.

What about in very close juxtaposition? Juxtaposition means side-by-side, and the whole thing means near, that's all it means. Verrucous means rough or warty.

Erythema means red skin. And is an antalgic gait a limp?

Pyrexia means fever; pyrosis is heartburn; and micturition is urination, or simply voiding. Micturition is miction, too, but miction is a little word.

Why don't we stop trying to impress people and give up things like ambulation, tandem gait, juxtaposition, and many more that we all know? Near, limp and walk a straight line are plain words, they are little words, and they are honest, which is more than I can say for pyrexia, pyrosis, micturition, and for ambulate, tandem gait, and especially for good old juxtaposition.

—F.C.

APPLES AND ORANGES

People who cannot count and who are unable to make up their minds about anything throw two catchphrases at you: *no two cases are alike*, and *it's like comparing apples and oranges*.

Many cases are alike; many people are alike. I suspect that some snowflakes are alike, even though I keep reading that no two of them are ever alike.

And you *can* compare apples and oranges. Oranges are rounder (the earth looks like an

orange, but not like an apple), they may be heavier, I like apples better, and oranges are *oranger*.

Can you compare deafness with blindness, or loss of a leg and loss of an arm? Yes, you can.

Deciding is a matter of judging when you have little information, but when that is all you are going to get, and when it is still enough to make up your mind. All we get in life is usually 51 percent, and it is enough.

You can compare heart disease with cancer, and morbidity with mortality, aspirin with morphine, and pneumonia with arthritis. Things that are different can be weighed in the scales, that's what scales are for; and they can be compared. Lead is heavier than gold, but I like gold better. And steak costs more than hamburger.

If you are comparing lemons with lemons, you are limited to counting and to very little else. If you cannot answer the simplest question, you will take refuge in saying *that's like comparing apples and oranges*. I can compare a train with a plane and decide which I like better. And apples and oranges do not baffle me. People who cannot compare apples and oranges just can't decide.

—F.C.

NO LONG ARTICLES, PLEASE

Besides being already-published manuscripts, articles are parts of speech and are just about the *littlest* words there are. And articles are meant to be *little* works of art.

Little is what I am trying to get at. There is no need for ten-page articles, and authors are well advised to stop writing them. There is no room in a journal for them, they are padded, and readers avoid them. It is not necessary to take eight or ten pages to say something; anything can be said in a page or two. And it is time for editors and committees to say simply, your manuscript is too long and we cannot publish it.

Mortality rates and writing have this in common. You have only to count the dead

bodies in the one, and count the pages in the other. Manuscripts have death rates too, and if yours comes back, maybe it was too long; count the pages.

I like thin red books. And when I looked for a painting to go over my fireplace, I told the artgallery salespeople I wanted a 40-inch wide, not over 30-inch high picture, because my living room has a sloping ceiling and my mantel is wide. Size came first. After that I could judge quality and content, and even then I went entirely by color.

The best twenty-page article will not fit in a journal, or it will displace too many equally good ones.

Count the pages. And when you are through counting, take some of them out.

—F.C.

EMPTY CALORIES AND JUNK FOOD

We eat because we must, and because we are programmed to want to do what needs to be done, because a higher power has substituted one stimulus in place of another.

So we seek sleep because it is pleasant, and in some unproven way sleep is good for us. We reproduce often because the bringing about of reproduction is again a source of pleasure. And we eat and drink because of hunger, and to a great extent because eating and drinking bring us gratification, as do sleeping and reproducing.

But it may be that we eat too much, and sleep longer than is necessary, and beget overly much, and this brings us to junk foods, contraception, and empty calories.

For in our eating, do we not yield to the delights of gourmandizing and seek out those goodies that do not increase our weight? And in our bedding, are we not given over to thoughts on IUDs and pills?

What is the difference then between the thoughtful dieter and the junk-food eater? If junk foods are tasty and free of weight-putterons, are they not what the dieter looks for in his favorite counter at the grocery?

Empty calories are another thing. If they are energy suppliers without the body-

building blocks we associate with food, they may be what we want in some instances, and what we do not need in others.

Words are good, and Humpty Dumpty has the right idea when they are to mean what he wants them to mean. Hamlet said it too, he was reading words. But when you read names like junk food and empty calories, you may be taken in by a latter-day Humpty Dumpty or a modern Hamlet.

Reading is good for you, almost as good as thinking.

—F.C.

THE LABORATORY

Disease has always been with us; it is only that we are learning more about it, and about its intricacies, and that takes us to testing. Tests have become sophisticated to an undreamed-of state, and a little of this is easily done in the office, and much of it is in things sent to the laboratory.

A very good physician once said that he would open a second office where there would be no laboratory, and that he expected to practice as good medicine there.

But case reports are more laboratory than clinical now, and we are deluged with beta globulin and metamyelocytes and T4; and triglycerides and FEV₁; and with milliequivalents and milliliters, and now with katala and joules, until we cannot tell how sick the patient is or what the disease is, if any.

We have two variables, time and people. There used to be less information, and less to know and to remember and to think of. And there are doctors who can diagnose, and those who deluge you with numbers, and whose reports are only a repetition of what the laboratory sent over.

Do we have too much testing, or did we once have too little? While there is so much, there is still room for logic and for skill and sense, and for diagnostic acumen. If we know the hemoglobin, do we need the hematocrit? If we look at the patient, do we need the hemoglobin? A big fat clue is the fact that so many have come to lean on the laboratory so

much that many reports do not tell us two things I should like to know: how much does the patient weigh, and how fast is he breathing?

There was once a way of testing a drop of blood that would tell you everything that was wrong with the patient, but it did not succeed; maybe that is what is coming, and we will not need to see the patient. Perhaps

we do need all the lab work that is being done, maybe there cannot be too much of it. We surely need more than we had. But in between there is a great deal of room for thinking. Meanwhile, there are these two new tests: weigh the patient and count the breaths. All you need is a watch and a scale and a minute.

—F.C.

Head Injury

KENNETH M. BROWNE, M.D.

THE intent of this paper is to provide a practical guide for the management of an acute head injury by an attending physician during the first few hours after the injury. Emergencies which must be dealt with immediately are described, and a method is given for analyzing the clinical course of the patient to determine when and if transfer to the care of a neurosurgeon is indicated.

The A B Cs for the immediate care of the patient are: A. Airway, B. Breathing and C. Cardiovascular status. It should be determined at once that the airway is good, the respiratory effort and exchange are adequate, and the blood pressure is satisfactory.

Airway management begins with the removal of any obstruction found by examination of the mouth and nasopharynx. At the scene of the accident, it may be advantageous to place the patient in the prone position. In the emergency room the airway is established with suctioning and by lifting the mandible forward. If it is apparent that constant attention to the airway is necessary and that the patient is not likely to regain consciousness soon, intubation or a tracheostomy is indicated.

Oxygen should be administered by a nasal catheter to an unconscious patient. A nasogastric tube should be inserted and the gastric contents aspirated.

Routine chest roentgenograms may be delayed unless a chest injury is suspected. Skull films are also put off until the patient's condition allows a satisfactory and safe examination. A wide variety of abnormal respiratory patterns may occur. Usually they result from a combination of central and peripheral causes. The above regime together with mechanical ventilation if necessary will minimize most respiratory problems. The most common avoidable complication in the management of acute head injuries results from their transport to another facility for definitive care without insuring that a good airway and an adequate exchange will be maintained en route. A

change in the patient's state of consciousness or other complications such as a convulsive seizure may convert a favorable situation to an unfavorable prognosis if the patient has not been intubated or has not had a tracheostomy.

Shock is not common as the result of a head injury alone. The progressive development of hemorrhagic shock is usually caused by skeletal or visceral injuries. A peritoneal tap is useful although occult hemorrhage may be retroperitoneal. Infants may bleed enough into the subgaleal space after extensive skull fractures to result in shock; however, they also are prone to develop a transient, neurogenic type of shock soon after a brain concussion. It is important to be aware of this fact if brain swelling secondary to the injudicious administration of I.V. fluids is to be avoided. Spinal cord injury causes shock secondary to vasomotor paralysis. The diagnosis is evidenced by lack of spontaneous movements of the extremities, abdominal respirations, and areflexia. Hypotension is treated primarily by vasoconstricting drugs because pulmonary edema would be a likely and serious complication of the inappropriate use of intravenous infusions.

Hemorrhage from a basilar skull fracture is commonly manifested as an obstruction to the airway by reason of blood in the nasopharynx. When the eardrum is intact the diagnosis of a fracture into the petrous ridge is made by otoscopic examination. Routine skull films often do not show this type of skull fracture. Antibiotic therapy is indicated if cerebrospinal fluid is noted as a pink flare beyond the blood stain of a drop of blood upon a gauze sponge.

If hemorrhage from the nose or mouth is alarming in degree, compression of one or the other common carotid arteries may control it. If so, the common and external carotid arteries are exposed on that side and the appropriate artery is ligated.

Problem bleeding from a scalp laceration usually occurs from one or more arteries. They should be clamped until they can be ligated. A pressure dressing is not adequate treatment. If the scalp laceration is to be sutured, the scalp should be shaved as widely as for a planned procedure in the operating room. Infiltration of the margins of the laceration with 1% Xylocaine (lidocaine) with epinephrine provides good analgesia and hemostasis. It is important to irrigate the wound copiously and to inspect the wound to the limits of the scalp avulsion. Foreign bodies and compound fractures may otherwise be overlooked. If the galea is closed with interrupted permanent sutures placed approximately 1 cm apart, hemostasis will be good and the cosmetic result will be improved.

An accurate description of the accident is helpful. It may indicate that the injury is likely to be more serious than is apparent on the preliminary examination, or it may suggest avenues for further study. A detailed history should also be obtained as soon as possible. For example, it is well to know that the patient is receiving Coumadin (warfarin). As soon as the above emergency situations have been dealt with, it is wise to assess the severity of the brain trauma so that definitive care can be arranged for as soon as possible, if needed.

Any patient who is in coma or semicoma should be considered a potential neurosurgical emergency unless he is improving rapidly within the first hour of the injury. It is generally conceded that special diagnostic studies are indicated in such cases because of the high incidence of neurosurgical complications. For purposes of this discussion, a patient in coma is unresponsive or poorly responsive to painful stimuli. If pupillary and corneal reflexes are also absent, coma is described as deep or complete. Semicoma indicates inability to arouse beyond non-purposeful activity and failure to maintain this arousal state for more than a few moments after noxious stimuli cease.

The most common sequence of events which signals a neurosurgical emergency is the progressive dilatation of one pupil associated with a decreasing state of consciousness. Decerebrate seizures, labored

respirations and dilatation of the other pupil usually follow. These signs and symptoms result from compression of the brain stem secondary to herniation of the medial aspect of the temporal lobe through the tentorial notch in response to one or more of the following conditions: (1) cerebral swelling, (2) extradural hemorrhage, (3) subdural hemorrhage, (4) subdural hygroma, or (5) intracerebral hemorrhage. Of these possibilities, only a subdural hygroma would be treated adequately by an emergency burr hole so that the patient's best hope for recovery consists in definitive care as soon as possible. This sequence of events may start from a normal state of consciousness as seen in extradural hematomas associated with a lucid interval. More often they begin from the unconscious state. If an extradural hematoma develops in a conscious patient, he will complain of a severe headache in the temporal area overlying the hematoma. Examination usually shows a local contusion, and the history often indicates local trauma as well. Skull films could be obtained, but even if there is no fracture across the groove of the middle meningeal artery, it would be wise to transfer the patient immediately to the care of a neurosurgeon since an extradural hematoma may occur even though a skull fracture is not seen. If the referral is delayed until papillary dilatation begins, the patient may die or suffer permanent neurological injury before treatment can be given. This lesion can not be treated successfully with an emergency burr hole. A craniectomy is necessary to remove the clot and to prevent its immediate recurrence. Such an operation is not likely to be done successfully by an untrained surgeon. If the diagnosis of an extradural hematoma seems likely and progressive findings have been noted, some time might be gained for successful treatment if the patient were given 20% mannitol in a dosage of 1.5 gm/kilogram by I.V. infusion over a 45 minute period while en route to the neurosurgeon. The intravenous injection of 10 mgm of dexamethasone is also recommended. Other neurosurgical emergencies include compound skull fractures, spinal cord injuries, and gunshot wounds of the brain.

When brain trauma is less severe, it is largely on the basis of serial observations

and interpretation of vital signs that a decision can be made as to when or if the patient need be transferred for neurosurgical care. The vital signs which should be observed and recorded are: (1) state of consciousness, (2) pupillary size, shape, reaction to light and equality, (3) blood pressure, (4) pulse, (5) respirations, (6) temperature, (7) reflexes, and (8) motor system signs.

The state of consciousness is both the most important and the easiest vital sign to interpret. It is unusual for a patient with a head injury to have a progressive neurosurgical complication in the absence of a decreasing state of consciousness. On the other hand, children often become less responsive soon after the injury in the absence of a neurosurgical complication as the result of some relief from stimuli attending the traumatic event. Usually this benign type of change can be recognized by the fact that the patient will arouse fully to painful stimuli and shows no significant change in other vital signs.

Next to the state of consciousness, pupillary signs are the best guide to the interpretation of the patient's clinical course. The progressive dilatation of one pupil is often the first clear indication of a significant change for the worse. As the pupillary dilatation progresses, there is usually a decrease in the state of consciousness. This pupillary sign ordinarily signifies the beginning of brain stem compression and calls for immediate action. Progression to fixed, fully dilated pupils constitutes an ominous sign of brain stem injury.

Pupillary inequality is not always a sign of an impending emergency. Occasionally pupillary inequality existed prior to the injury. Often a pupil will dilate as the result of a direct trauma to the eye. Occasionally the patient has a transient pupillary inequality of a variable degree which does not prove to be the result of a tentorial herniation. In these instances, the lack of progression of pupillary dilatation and the absence of significant change in other vital signs is helpful in the differential diagnosis.

The blood pressure and pulse are often labile after brain trauma. If the intracranial

pressure rises, the patient ordinarily will have a progressive elevation in blood pressure. The pulse may rise or fall but the state of consciousness will worsen or restlessness will increase. Young adults may have bradycardia and a diastolic hypertension sometimes of a rather marked degree without a change in other vital signs. The cause is often obscure.

Even patients with only a moderately severe brain concussion often have a rectal temperature elevation to 100-101° F range. They may also have an elevated white count with a left shift as an early response to stress. Hyperthermia is uncommon except with severe brain trauma. It is treated with exposure, acetaminophen, and a cooling blanket if necessary. Ice bags applied to the axillae and groins are also helpful.

Most respiratory problems associated with brain trauma are caused by peripheral factors, but central regulatory centers or pathways may be damaged. Hypoventilation and hypoxia are the most common problems. Hyperventilation may occur with pontine injuries. Respiratory problems can be prevented or corrected for the most part by suctioning, intubation or tracheostomy, artificial ventilation, and the administration of oxygen. Treatment of hyperventilation may necessitate the use of d-tubocurarine and mechanical ventilation. Appropriate treatment of a chest injury may be needed as well.

Reflexes allow examination of various levels of the nervous system. Corneal reflexes are absent in deep coma; their return signals at least some improvement. Failure to provoke deviation of the eyes by irrigation of the external auditory canal with ice water in an unconscious patient indicates a brain stem injury, unless the canal is filled with blood or wax, the labyrinths are nonfunctioning, or the patient has oculomotor paralysis. A comparison of muscle-stretch reflexes and skin-muscle reflexes of the two sides affords a simple method for detecting existing or developing abnormalities.

Examination of the motor system in unconscious or uncooperative patients includes observation of spontaneous motion, notation of muscle tone, recording of

involuntary movements including seizure activity, and the use of drop tests of the extremities to detect weakness.

A lumbar puncture serves no useful purpose during the acute state of a head injury and may be harmful. Later the procedure may be necessary to rule out the diagnosis of a bacterial meningitis.

Treatment of a brain concussion of moderate severity should take cognizance of the probability that some degree of brain swelling will occur and will last several days. It is during this same interval that water is retained in response to stress. Symptoms usually include headache, nausea, vomiting, and a tendency to sleep if left undisturbed. Treatment consists in the intravenous administration of normal saline solution to supply approximately 75% of the calculated normal need. For adults, 1500 ml per day is about right for the first two or three days, after which a normal intake can be resumed gradually if serum electrolyte and osmolarity studies are normal. Excessive fluid loss as with nasogastric suction should also be replaced. An accurate intake-output record is important. This usually requires a catheter and the hourly recording of urine volumes. Diabetes insipidus or an inappropriate secretion of the antidiuretic hormone would be detected by this regime.

Dexamethosone may be administered intravenously for treatment of brain swelling in an initial dose of 10 mgm in an adult. Thereafter, the drug is administered intramuscularly or orally in a dose of 4 mgm t.i.d. for two or three days, then it is discontinued gradually over a similar interval. The incidence of stress ulcers may be slightly increased with the use of dexamethosone. Antiacids may be given per nasogastric tube but their value is questionable. The occurrence of a stress ulcer is evidenced by a falling hemoglobin, hematocrit, or red cell count; bright red blood or a coffee ground appearance of an emesis or of a gastric aspirate; changes in the blood pressure and pulse rate; or by stools which are tarry or have a positive test for blood.

Hypertonic solutions are usually not given routinely or repeatedly to patients with a brain concussion of a mild or moderate

severity. They should not be used in the immediate posttraumatic period unless an intracranial hemorrhage has been ruled out, or unless immediate surgical intervention is planned.

Fat emboli usually are symptomatic within 12-48 hours after trauma, but symptoms may be delayed as long as a week. Such patients often develop fever, tachycardia, tachypnea, dyspnea, increasing confusion, seizures, or petechial hemorrhages. The hematocrit and platelet count are usually abnormally low. Blood gases drawn with the patient breathing room air will show a marked fall in the pO₂. Examination of the chest may reveal rales, and the chest x-ray may show bilateral fluffy infiltrates. If the patient is suspected of having fat emboli and cannot maintain a pO₂ of at least 75 mm Hg. while breathing oxygen at less than 50% concentration, positive end-expiratory pressure should be given with a volume cycled respirator. It is recommended that the level of positive end-expiratory pressure be adjusted to maintain a satisfactory pO₂ with a concentration of inspired oxygen of less than 50% rather than increasing the concentration of oxygen to accomplish the same result.

Prophylactic anticonvulsant medication is recommended in the treatment of severe brain trauma. Diphenylhydantoin has the advantage of not causing sedation in therapeutic doses. A prompt and satisfactory blood level can be obtained by administering the drug intravenously at a rate not to exceed 50 mgm/min. The initial dose is 150-250 mgm in adults, and an additional 100-150 mgm may be repeated 30 minutes later. The dosage in children is calculated by weight as compared to the adult dose whereas the infant dose is 250 mgm square meter of body surface. An intravenous injection should be monitored by ECG. The desired blood level thereafter can be maintained with intermittent intravenous injections or by a nasogastric tube. Intramuscular absorption of diphenylhydantoin is unsatisfactory. Single convulsive seizures may be treated with intravenous Diazepam. Its protective action lasts only 30-40 minutes. It is advisable to read the instructions supplied with each of these

anticonvulsants before they are administered intravenously.

Pain management may require the cautious use of a narcotic drug such as meperidine in gradually increasing amounts to an endpoint which gives adequate control of pain without interfering seriously with the evaluation of vital signs. In adults, an initial intramuscular injection of 50 mgm of meperidine is suggested. The dose may have to be increased or supplemented with a sedative such as chlorpromazine, but

narcotic drugs or sedatives should not be used unless the patient arouses well to painful stimuli.

Diffuse intravascular coagulation may accompany massive head injury, and be manifested as a bleeding diathesis. The diagnosis is suggested by a low platelet count and a decrease in fibrinogen. Treatment requires fibrinogen 50 mgm/kg, one concentrate pack of platelets/10 kg, and either fresh plasma or a plasma factor concentrate. Heparin is contraindicated in traumatic cases.

Myasthenia Gravis and Pregnancy

FROM my recent personal experience with two patients with the simultaneous afflictions of myasthenia gravis and pregnancy, I would like to outline four major potential problem areas that one must be constantly aware of as relates to labor, delivery and the postpartum period with these patients.

Problem 1 — The myasthenic mother must be under constant observation; I insist that the nursing staff not for a moment leave the patient's side while she is in labor and later delivery. The main fear during labor and delivery is that the patient may not only tire herself out from these activities, but that she may also experience generalized fatigue from the underlying myasthenia gravis. The hospital's anesthesiologist must be available on a moment's notice in case respiratory distress develops.

Problem 2 — The patient should avoid as much as possible analgesics, barbiturates, muscle relaxants and gaseous anesthetic agents because of the potential for these agents to produce focal or generalized

muscular relaxation that may compound the underlying myasthenic fatigue.

Problem 3 — Immediately following delivery and for the following five days the patient must be observed closely for any changes in her myasthenia gravis that would warrant either an increase or a decrease in her anticholinergic myasthenic medication. Unfortunately, one is not able to predict how any one patient's myasthenia gravis will change, if at all, following delivery.

Problem 4 — One must bear in mind that approximately twelve percent of infants born to myasthenic mothers may develop a transient neonatal myasthenia gravis of up to seven weeks duration. For this reason, the neonate must, also, be closely observed by the nursing staff, pediatrician and informed mother.

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Management of Dysphagia In the Cancer Patient

DYSPHAGIA secondary to esophageal compression by thoracic neoplasms is sometimes part of the natural history of these such lesions, as for example lung carcinoma.¹ It is not uncommon for primary bronchogenic carcinoma to involve the esophagus, and at times it may be impossible to locate the site of the original lesion. Also, lesions of the proximal stomach and upper respiratory tract may be the cause of luminal obstruction. All the aforementioned lesions have one common characteristic: they have arisen in an area contiguous to the area of obstruction.

Rarer in occurrence is dysphagia secondary to distant metastatic lesions, the most common of which is breast carcinoma.² A case involving prostatic carcinoma has been described.³ The purpose of this presentation is to present case studies of this phenomenon and to point out the role of radiation therapy as a most satisfactory palliative modality.

Case #1

This is a 48 year old white female who was treated for a mucinous adenocarcinoma of the ovary with bilateral salpingo-oophorectomy and hysterectomy, followed by 5,000 rads to the pelvis. Five years later, she developed a left supraclavicular mass which proved to be undifferentiated carcinoma. For this she received cobalt-60 external irradiation. Two years later she presented with a one year history of progressive dysphagia. Upper GI series revealed an extrinsic lesion compressing the middle third of the esophagus. This was interpreted as a metastatic ovarian lesion and she was treated with 5,000 rads tumor dose in 25 fractions in 35 days. She subsequently obtained complete relief of dysphagia. Three months after completion of treatment, a barium swallow showed no evidence of tumor.

Case #2

This is a 62 year old white female who had a radical mastectomy for carcinoma of the

left breast 13 years prior to referral in December, 1973, when she was noted to have a right pleural effusion and a large mediastinal node. She was placed on chemotherapy, but subsequently developed progressive dysphagia. Esophagram revealed a 2-3 cm extrinsic lesion at approximately the level of the carina. This was then treated with cobalt-60 external irradiation. She received a dose of 4,400 rads to the lesion in 21 fractions in 29 days. She subsequently gained marked relief of dysphagia in spite of only minimal improvement seen on the barium swallow three weeks after completion of treatment.

Case #3

This patient is a 83 year old white female admitted with dysphagia of 10 months duration. Twelve months before referral, she received palliative radium treatment for metastatic squamous cell carcinoma of the cervix. A barium swallow revealed an extrinsic mass in the region of the carina which was felt to be a metastatic lesion. External irradiation for palliation was started but discontinued after one treatment because her condition deteriorated, and she died of an apparent pneumonia. Though she did not receive definitive treatment, this case is mentioned because of apparent rarity of this metastatic manifestation.

Case #4

The patient is a 69 year old white female who had a left radical mastectomy in 1960. As the axillary nodes were negative for tumor, the patient received no postoperative irradiation. She did well until 1969, when she developed progressive dysphagia. An upper GI series revealed an esophageal stricture.

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Esophagoscopy and bronchoscopy were performed. Biopsy of the area of stricture in the esophagus was negative for tumor but biopsy of the left main stem bronchus area revealed metastatic breast carcinoma. The patient was subsequently treated with anterior and posterior mediastinal portals, receiving a midline tissue dose of 2,500 rads in 14 treatment fractions. Her workup during that admission revealed that she had a left lung nodule as seen on chest x-ray. She obtained good relief of her dysphagia and has never had any recurrence of this problem. She was placed on stilbestrol and did well until March, 1973, when she was noted to have progression of pulmonary metastases. She was then placed on multiple drug chemotherapy with subsequent decrease in the size of the lung nodules. The patient continues in clinical remission of her disease.

Case #5

The patient is a 56 year old white female who had a right radical mastectomy in May,

1974. As positive right axillary nodes were present, she was treated with postoperative external irradiation to the right supraclavicular, infraclavicular, and axillary nodes to a total tissue dose of 5,200 rads. She then received intermittent 5-FU chemotherapy intravenously. In January, 1975, she was admitted to the University Hospital with progressive dyspnea and difficulty swallowing. She was treated at this time for left pleural effusion and pneumothorax. A barium swallow was performed and revealed compression of the esophagus at the level of the carina by an extrinsic mass. The patient was treated with anterior and posterior opposed mediastinal portals encompassing the area of the esophageal obstruction. She received a midline tissue dose of 4,000 rads in 20 treatment fractions. The patient obtained complete relief of her dysphagia. The patient's clinical course followed a progressively downhill direction and she expired on 4-23-75 of wide spread metastatic breast carcinoma.



Case No. 2 (1) Before treatment with external irradiation. Patient was markedly symptomatic with dysphagia.

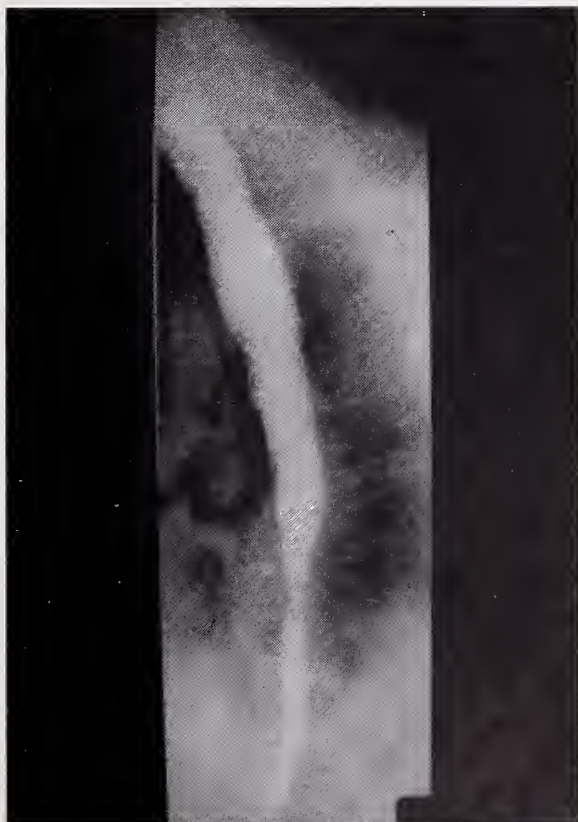


Case No. 2 (2) At completion of course of external irradiation. Patient had complete relief of dysphagia even though esophageal lumen is still constricted.

DISCUSSION

Toreson⁴ in 1944 reported an incidence of 3.2 percent secondary involvement of the esophagus by cancer, a total of 19 out of 599 cases. However, only three of these cases were from a distant primary tumor — underscoring the infrequent occurrence of this type of lesion. Atkins⁵ emphasizes the fact that breast tumors metastasizing to the esophagus cause friability of the wall which make it less tolerant of manipulation such as dilatation than primary carcinomas of the esophagus.

Polk² stressed the extrinsic appearance of metastatic breast lesions as seen on roentgenograms and recommends specific therapy such as irradiation and surgical bypass. Sears⁶ states that significant palliation was achieved for all the breast carcinoma patients with intrathoracic metastases who had esophageal, sternal or vena caval signs and symptoms. Five out of six patients with esophageal compression were improved over three months.



Case No. 2 (3) Three months following external irradiation. Continued improvement noted on barium swallow. Patient remains asymptomatic.

Holyoke⁷ et al recommends systemic therapy since his cases of metastatic breast carcinoma had wide spread disease. However, they said local treatment for esophageal metastases cannot be justified.

Of course with wide spread metastatic disease the approach to treatment would be with a systemic agent, if a useful one existed for the tumor type involved such as hormonal manipulation⁸ or chemotherapy⁹ in treating metastatic breast carcinoma. However, for localized symptomatic soft tissue metastases, external irradiation is at present the best form of palliation especially with breast carcinoma which makes up the majority of these lesions. It is known that only a certain percentage of patients respond to hormone or chemotherapy, primarily with breast carcinoma. Often a lesion is used as a parameter of success of treatment, for example lung metastasis or a supraclavicular node. However, with strategically located metastatic lesions such as those described, irradiation is recommended since the response to irradiation is usually predictable with improvement of nutritional status and subsequent improvement in tolerance to any modality of treatment be it chemotherapy, irradiation or surgery.

Though the esophageal lumen did not reveal significant increase in patency according to the barium swallow obtained at first follow-up visit, the patient (Case #2) had marked relief of dysphagia. This point is worthy of note and is related to the flow dynamics through a tubular structure which are seen to markedly improve with only a small increase in diameter. This phenomenon is seen to occur with irradiation in the superior vena cava syndrome.¹⁰

The equation of continuity¹¹ indicates that a volume of fluid crossing per unit time through a tubular structure is equal to the area times the velocity of flow. If the velocity is maintained at a constant rate then the flow of fluid past a length of a tubular structure is proportional to the square of the diameter. A small increase in the diameter of a tubular structure will result in a large increase in the cross sectional area. For example, if an esophageal lumen has a diameter of 2 mm due to constriction, the area will be 3.14 square mm. If the area of constriction is expanded to a diameter of 5

mm, the area through which fluid may flow is now 19.6 square mm. This results in approximately a 525 percent increase in flow of fluid. This basic tenet of hydrodynamics illustrates the fact that though the lumen of the esophagus following palliative external irradiation may not appear appreciably enlarged on the barium swallow roentgenograms, the patient obtains marked relief of dysphagia.

There may be some concern over the possibility of causing total obstruction due to radiation edema. Because of this concern the recommendation may be made to pass an NG tube to maintain a focal passage. This procedure is not routinely recommended as the presence of a tube may in itself induce edema by acting as an irritant. Also perforation is a real possibility as the esophageal wall is more friable because of metastatic tumor involvement.

The patient in Case #4 illustrates the sometimes favorable natural history of breast carcinoma. In the past patient survival without treatment from the onset of symptoms of breast carcinoma was a mean duration of approximately 32 to 39 months.¹² However, we now infrequently see such patients with the present day use of chemotherapy and external irradiation. Some untreated patients have been reported to survive as long as 35 years¹³ with breast carcinoma. However, at some point in time during the course of the disease, a metastatic lesion may occur at a critical area such as the esophagus or the cervical spine. Such a metastatic focus may cause a rapid downhill course with death occurring in a short time. If the metastatic area can be relieved with palliative treatment, the immediate threat to the patient's life will be obviated and the natural history of the disease will ensure however modified by systemic treatment.

Some of the breast cancer patients will have had post-operative irradiation to the internal mammary lymph node chain in the past. This may pose a problem regarding the possible occurrence of radiation induced pericarditis and myocarditis. These complications are dose related as shown by Stewart¹⁴ but their possible occurrence must be recognized and accepted because of the imminent nature of the esophageal obstruction.

SUMMARY

1. Breast carcinoma is the most common distant metastatic lesion to the esophagus. Other primary lesions will metastasize to the esophagus but this is a rare occurrence.

2. Palliative external irradiation in adequate dosage is the best modality of treatment for the problem of dysphagia because of the time required to achieve an objective response with chemotherapy, the uncertainty of its occurrence and the shorter length of tumor regression.

3. Tolerance to any further chemotherapy will be greatly improved with increased food intake.

4. Routine passage of a NG tube is not recommended.

5. Cardiac tolerance to irradiation should be kept in mind since a patient may survive for extended periods.

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Treatment of Gastrointestinal Cancer, Can Irradiation Help?

RECENTLY, irradiation therapy has been used more frequently to treat gastrointestinal malignancies. The advent of megavoltage equipment eliminated previous technical obstacles. We have been asked to treat increasing numbers of patients with recurrent gastrointestinal cancer and have used Cobalt 60 or megavoltage x-ray, usually with added chemotherapy.

It has become evident to us that the timing of an effective therapy program is very important and probably different from the usual schedules of irradiation treatment. One reason for this difference is the radio-resistance of the cells that make up gastrointestinal cancers. Because of this resistance the usual dose schedules may not cause a sufficient degree of damage to the individual cells making up the tumor to cause a significant magnitude of cell death.

Cancer cells are most susceptible to irradiation damage during mitosis and to lesser extent just prior to DNA synthesis and in early DNA synthesis.¹ It seems likely that only a few cells of the gastro-intestinal cancers are in these sensitive states at any one time. Therefore, less frequent treatment might be of greater effectiveness in treating these cancer cells.² Furthermore, the number of damaging events in a radio-resistant cell required to kill is probably greater. If so, greater individual doses would be advantageous. If the cells could be cycled into a sensitive status and then bombarded with irradiation and an appropriate chemotherapeutic drug, the use of our present methods would be of maximum potential.

In an attempt to better delineate the clinical problem, we have studied the patients treated in 1970, which was about the time we became excited about the possibilities of treating these tumors by modified techniques. Fifty patients with gastro-intestinal malignancies were treated in this department in 1970 using irradiation alone or in combination with chemotherapy

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(usually 5-fluorouracil). All of these patients had been operated on and had proven diagnoses. Six have been lost to follow-up and are considered dead. They are eliminated from the series because of the purpose of the study is to elaborate the problem rather than bask in the glow of therapeutic triumphs. Of course, had there been triumphs, we would be anxious to make this known. The distribution of disease and current status is shown in Table I.

It is evident from Table I that the mortality rate is extremely high. This disappointing mortality, in part, perhaps is attributable to the advanced disease we were asked to manage. The distribution by stage was: Stage I (local) 2 patients; Stage II (regional) 27 patients; Stage III (generalized) 15 patients. The average survival time was: Stage I, 3.3 years; Stage II, 2.1 years; and

TABLE I
PATIENTS TREATED IN 1970 FOR GASTRO-INTESTINAL MALIGNANCY

Site of Cancer	Number of Patients	Living and Well	Dead
Esophagus	8	0	8
Stomach	4	1	3
Small Intestine	2	1	1
Colon	20	0	20
Rectum	4	0	4
Pancreas	4	1	3
Gall Bladder	2	0	2
Total	44	3	41

Stage III, 0.8 years. The rate of eventual proven liver metastases is shown in Table II.

From Table II one notes that about half of the patients had liver metastases. From our analysis we know that 40 of the 44 patients died of their malignancy.

Discussion

Since about 1970 we have been modifying our techniques of treating gastrointestinal malignancy by empirical observation. We examine the patients frequently and attempt to modify our management so as to meet each patient's specific problem. In later years, not yet analyzed in detail, some patients had complete resolution of liver metastases as shown by nuclear scans. Many patients were relieved of distressing pelvic and perineal pain secondary to recurrent cancer of the rectum. Patients have been freed of rectal bleeding. Large stomach cancers have resolved as demonstrated by gastro-intestinal x-ray studies. However, in general, the benefits are relatively short-term, so we have started an analysis of treated patients in an attempt to build on our successes.

It is evident that prompt treatment is important.³ Even better is pre-operative treatment whenever possible, especially in carcinoma of the rectum.^{3, 4, 5} Once the tumor is recurrent the patient generally has distressing symptoms of pain secondary to tumor involvement of soft tissue, bones and nerves. If the patient were treated prior to the development of the recurrence the suffering might be eliminated.

Is the probability of local recurrence great enough to warrant postoperative prospective

therapy? The incidence of recurrence of carcinoma of the rectum can be correlated with the anatomic site with the highest rate of 15 percent⁶ in the lower third of the rectum. The higher grade cancers tend to recur (about 20 percent) more often than the lower grade.⁶ The more advanced lesions (16 percent)⁶ and the lesions with more local spread (17 percent)⁶ also show more tendency to recur. About 21 percent have perineal recurrence.⁷ In general, about 12 to 15 percent³ of rectalsigmoid cancers recur locally.

Allen and Fletcher⁵ treated 51 patients who had cancer of the rectosigmoid with 5000 Rads prior to surgery. The patients tolerated the therapy and the operation was not more difficult. There was no increase in the surgical complication rate. No patient showed a local recurrence after surgery. Some patients originally classed as non-resectable became resectable.

The main reason for early treatment is that the normal structures can tolerate only limited doses of irradiation. Irradiation kills cancer cells by a log survival vs. time relationship. That is, each dose of irradiation kills only a certain *percent* of the tumor colony. Since the total dose is limited by normal tissue tolerance and since irradiation (and chemotherapy) kill by percent reduction, it is obvious that the *fewer* cancer cells present the greater the probability of complete elimination of the malignancy.

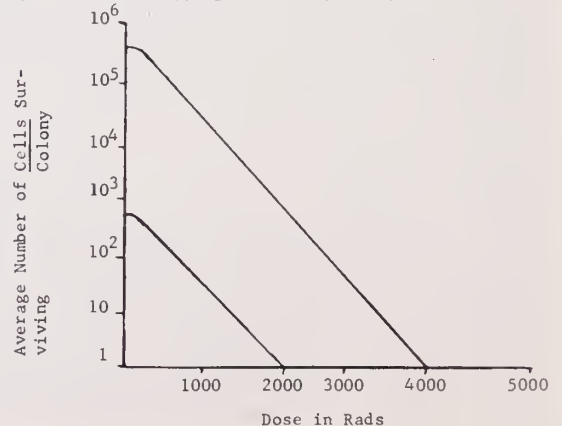
Figure I represents a hypothetical, but typical survival of tumor cells when irradiated. Curve A represents the kill of

TABLE II

RATE OF LIVER METASTASES IN PATIENTS TREATED FOR GASTROINTESTINAL MALIGNANCY IN 1970

Site of cancer	Number of patients	Number of patients with liver Metastases
Esophagus	8	0
Stomach	4	2
Small Intestine	2	0
Colon	20	10
Rectum	4	3
Pancreas	4	3
Gall Bladder	2	2
Total	44	20

FIGURE I
HYPOTHETICAL CELL SURVIVAL WITH RADIATION THERAPY



tumor cells when the initial tumor contains colonies of about 5×10^5 cells which would form a spherical mass about one millimeter in diameter. In other words, it would hardly be visible.

After 2000 Rads the average cells per colony is reduced to about 10^3 which would form a sphere about 0.1mm in diameter. However, in the case of Curve B if the initial colonies contained about 10^3 cells, then 2000 rads would reduce the average population to only one cell. If Curve B represented a micrometastasis in the liver, 2000 rads would almost completely eliminate the tumor. Hopefully, immune reactions of the host could cope with the few remaining cells or follow-up chemotherapy would eliminate the residual.

Note that to reduce the larger colony size (Curve A) to the same final one cell status as in the case of Curve B, about 4000 rads is required. If these colonies were in the liver, 4000 rads would exceed the tolerance of the whole liver, but 2000 rads would be tolerated. Thus, microscopic foci might very well be eliminated by tolerable management. Note also that in the case of Curve B, 2000 rads killed 1000 cells while in Curve A 4000 rads killed 500,000 cells.

Since so many patients develop liver metastases, something should be done about this problem. The normal liver is sensitive to irradiation. However, large doses of irradiation can be given to specific tumor masses in the liver, which if successfully eliminated, allow regeneration of normal liver into the void created by the dissolution of the tumor. Surely it would be better to treat the liver up to tolerance on a prospective basis to eliminate micrometastases *prior* to development of clinical disease. This would be of particular importance in patients with cancer of the colon, gall bladder, pancreas, and rectum.

One of the major problems of the radiation therapist is tumor localization. The therapist may know a patient has a carcinoma of the head of the pancreas, but the patient also has a couple of kidneys, a liver, several feet of small bowel and a spinal cord in the same region. The latter normal structures are not partial to large doses of radiation so the

cancer often cannot be treated effectively. The advent of computerized tomography scans should revolutionize the irradiation therapy of abdominal malignancies. We are in the process of setting up a therapy-planning unit, attempting to correlate the computerized scans with x-ray findings to localize the tumors. X-ray portal films will be produced. This data will then be entered into a programmed computer for isodose plotting which will allow optimal treatment setups. The data will be printed out in precise detail for the use of the therapy technicians in the treatment setups.

We have seen a number of patients who had either no known disease after surgery or who had residual disease, who were then given periodic doses of 5-fluorouracil. In spite of this chemotherapy, the tumors recurred and metastasized. In my opinion, at least in this known group of patients, fluorouracil alone is *not* adequate to eliminate significant gastro-intestinal cancer. The combination of irradiation and chemotherapy might have the capability of completely killing micro metastases if used soon enough.

In an attempt to rationally produce time-dose patterns of therapy we plan to secure chunks of fresh tumor, grow this tumor in tissue culture, and then make analyses of growth pattern, log kill and tumor growth rates. Obviously, the tumor in culture is not the same as the tumor in the host, but the information gained will hopefully be superior to surmise.

Summary

Recurrent or metastatic gastrointestinal malignancy is difficult to manage. Irradiation therapy in combination with chemotherapy can kill the cells of gastrointestinal cancer. Time-dose modifications of therapy have previously been on an empirical basis, but tissue culture studies might reveal more effective patterns. A plea is made to treat the patients as soon as possible after surgery rather than await a recurrence. The fewer the cancer cells present in the host the greater the chance for a cure using both irradiation and chemotherapy. Consideration should be given to preoperative irradiation therapy, particularly in carcinoma of the rectum.

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Chemotherapy in Review *

PART I

NOT infrequently, the practicing physician is taking care of a patient who is a potential candidate for chemotherapy. The physician may not be aware that the patient should be offered this modality. There is chemotherapy available for essentially every type of malignancy and patients should have an opportunity to be evaluated for this form of treatment.

The following discussion will emphasize this point by inclusion of these categories:

1. Indications for chemotherapy
2. A general discussion of drug therapy
3. New agents
4. Current chemotherapy for specific malignancies
5. Future of cancer chemotherapy

I. Indications:

Classically, chemotherapy has been used primarily for the treatment of disseminated malignancies. Currently, this modality holds great promise in select situations for prophylaxis. It is important that one prove dissemination or its absence before initiating drug treatment. An adequate metastatic workup should be performed on all cancer patients at the time of their initial surgical procedure and periodically thereafter. This should include a complete blood count, chest x-ray, biochemical survey including an alkaline phosphatase and other liver function tests, a gamma glutamyl transpeptidase (GGTP) and a bone survey, or preferably a bone scan if the patient has a tumor which

metastasizes to bone such as cancer of the breast, lung, kidney, prostate or thyroid. A liver scan should be done if either hepatomegaly or abnormal liver functions are present. Additional studies indicated for specific tumors include an acid phosphatase for patients with prostatic cancer and a carcino-embryonic antigen for patients with carcinomas of the G.I. tract, lung, breast and genito-urinary systems. If the patient has suspected metastatic disease then biopsy proof is usually necessary unless there are obvious lesions in multiple areas. For hematologic malignancies a bone marrow and other specialized tests such as lymphangiography are performed when indicated.

II. General Discussion of Drug Therapy:

Single drugs used sequentially still play a major role in the treatment of a wide variety of malignancies. Combination chemotherapy has added a new dimension in the treatment of certain malignant diseases, especially lymphomas and leukemias. Combinations often yield higher remission rates than single drugs used sequentially. Survival is definitely prolonged and cure may be possible for some malignancies such as Hodgkin's disease. Multiple agents are employed in smaller

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doses than single agents in order to avoid prohibitive toxicity.

III. New Agents:

In the last decade significant advances have been made in this field. A brief discussion of the newer agents is in order.

Adriamycin is an exciting new drug which has been used for a wide variety of tumors with considerable success (see table 1). Its side effects are numerous and potentially serious. Marrow depression occurs but is not usually severe. Alopecia develops in virtually 100% of patients. Serious chemical dermatitis may develop if the drug extravasates. Nausea and vomiting frequently occur shortly after administration of the drug. A recent report cites the interaction of this drug with radiation which produces severe local skin reactions in radiated areas.¹ The most serious side effects are cardiac. Heart failure due to myocardial degeneration is a potential hazard and may be irreversible. Cardiac damage can be detected early by measuring the systolic time interval,² which is the ratio of the pre-injection period to the left ventricular injection time. In order to avoid this complication the total dose should not exceed 550 mg per meter squared, thus usually limiting the duration of administra-

tion to nine months or less. The dosage schedule currently recommended is 60 mg per meter squared intravenously every three weeks. If the patient has hepatic involvement the dose is reduced to 40 mg per meter squared. Unfortunately, the drug is very expensive; a single dose of 90 mg may cost the patient approximately \$180.

Parenteral BCNU, oral CCNU and methyl CCNU are very effective new drugs (see table 2). They are the first agents to be used successfully against brain tumors. Delayed bone marrow depression is a potentially serious side effect. The maximum drop in counts usually occurs four to six weeks after administration of the drug, necessitating at least six week intervals between doses. An immediate side effect of BCNU is a drunk-like reaction, which occurs because the drug is dissolved in pure alcohol. This can usually be avoided by giving the drug slowly over a period of several minutes. Local irritation at the site of administration can develop with extravasation. Thrombophlebitis may result even without extravasation. Nausea and vomiting may begin two to four hours after administration of the drug and usually last for several hours. These drugs are still experimental but should be marketed soon.

TABLE 1

ADRIAMYCIN

- I. Action
 - antitumor antibiotic
- II. Uses:
 - 1. sarcomas
 - 2. lymphomas
 - 3. leukemias
 - 4. neuroblastomas and Wilm's tumor
 - 5. breast carcinoma
 - 6. bronchogenic carcinoma
 - 7. bladder carcinoma
 - 8. multiple myeloma
 - 9. thyroid carcinoma
- III. Side Effects:
 - 1. bone marrow depression
 - 2. alopecia
 - 3. chemical dermatitis
 - 4. gastrointestinal
 - 5. radiation interactions
 - 6. cardiac
- IV. Dose:
 - 60 mg/m² q. 3 weeks IV
 - 40 mg/m² q. 3 weeks IV
 - (if hepatic involvement)

TABLE 2

BCNU, CCNU AND METHYL CCNU

- I. Action:
 - alkylation and other mechanisms
- II. Uses:
 - 1. brain tumor
 - 2. lymphomas
 - 3. G.I. tract carcinoma
 - 4. melanomas
 - 5. breast carcinoma
 - 6. multiple myeloma
 - 7. lung carcinoma
 - 8. leukemia
- III. Side Effects:
 - 1. bone marrow depression
 - 2. immediate
 - 3. local
 - 4. hepatic (minor)
 - 5. renal (minor)
 - 6. gastrointestinal
- IV. Doses:
 - A. BCNU 10 mg./m² x2 q. 6 weeks IV
 - B. CCNU 130 mg./m² q. 6 weeks IV
 - C. Methyl CCNU 200 mg/m² q. 6 weeks po

Bleomycin is an antitumor antibiotic used initially in Japan and is now available in this country (see table 3). It is effective in the treatment of squamous cell carcinomas including primaries of the cervix, larynx, penis and skin; for lymphomas and testicular carcinomas. Pulmonary fibrosis is the most serious side effect. The first sign of pulmonary toxicity is dry crackling rales and when heard, the drug should be discontinued. X-ray changes consisting of diffuse interstitial fibrosis may develop several days or weeks later. Steroids may be beneficial in some cases. This complication results in a 2-3% mortality rate. Most patients who die are over age 70 and have been given total doses in excess of 400 mg. Dermatologic side effects include brawny edema, swelling of the interphalangeal joints and alopecia. Acute toxicity is manifested by nausea, vomiting and high fever. There have been a few reported fatalities with the first dose of this drug in patients with lymphosarcoma. A test dose of 2 units should be given initially. If the patient tolerates this then full doses of 15 units twice weekly can be administered. This drug is very expensive and costs the patient approximately \$40 for 15 units.

Imidazole carboxamide is the drug of choice for melanoma (see table 4). Bone marrow depression is usually mild. Gastrointestinal symptoms can be severe and include anorexia, nausea and vomiting which are often refractory to antiemetics.

TABLE 3

BLEOMYCIN

- I. Action
antitumor antibiotic
- II. Uses:
 1. squamous cell carcinoma-cervix, larynx, penis, skin
 2. lymphoma
 3. testicular carcinoma
 4. ? esophagus
- III. Side Effects:
 1. pulmonary
 2. skin
 3. hematologic (minimal)
 4. acute toxicity
- IV Dose:
 - A. test dose of 2 units
 - B. 15 units 1-2 x weekly thereafter, IM, IV or Subq.

Mitomycin-C is another antitumor antibiotic developed in Japan (see table 5). It has been most useful for gastrointestinal tract carcinomas, especially for gastric and colon primaries. The drug has G.I. toxicity and delayed marrow depression, the latter necessitating four to six week intervals between doses.

IV. Current Chemotherapy for Specific Malignancies:

Current chemotherapy will be reviewed with an emphasis on the most significant new developments in the field. Response rates will be listed in parenthesis following the drugs. Ideally, a response can be defined as a reduction in size of a measurable lesion (50% or greater) for at least two months. A measurable lesion is one in which its entire outer border can be defined, such as a subcutaneous lesion or a pulmonary nodule. Hepatomegaly or a pleural effusion doesn't fulfill this criteria.

1. Breast Carcinoma:

Advances in the treatment of breast carcinoma have been impressive in recent years. Although the use of single agents has a place, combination therapy, at least in part, has replaced them. Effective single agents

TABLE 4

IMIDAZOLE CARBOXAMIDE

- I. Action
alkylation and other mechanisms
- II. Uses:
 1. melanoma
 2. other
- III. Side Effects:
 1. bone marrow depression
 2. gastrointestinal
 3. flu syndrome

TABLE 5

MITOMYCIN-C

- I. Action
antitumor antibiotic
- II. Uses:
 1. G.I. tract carcinoma
 2. other
- III. Side Effects:
 1. bone marrow depression
 2. gastrointestinal
 3. local
 4. other - malaise, weight loss, ? renal toxicity

include adriamycin (40%); 5-FU, cyclophosphamide, methotrexate, ThioTepa, and mitomycin-C (25-35%); and Alkeran, chlorambucil, vinblastine, vincristine, BCNU and CCNU (15-20%). Combinations with 5-FU, cyclophosphamide, and either adriamycin or methotrexate have produced rates ranging from 46-72%.^{3,4} Unfortunately, the duration of these responses has been relatively short. As a result, newer programs are now becoming even more complex with induction by multiple agents followed by maintenance programs utilizing several different agents in the hopes of prolonging the initial remissions. Combinations of chemotherapy with hormonal and immunotherapy are currently under investigation. Prophylactic chemotherapy appears promising. Alkeran given prophylactically in patients with positive axillary nodes reduced recurrences, especially for premenopausal females.⁵ There are numerous experimental programs using one to five drugs prophylactically,⁶ and some exciting results are expected in the near future. The combination of 5-FU, cyclophosphamide, and methotrexate appears effective.⁷ The success of additive (estrogens, androgens, progesterone) or ablative (oophorectomy, adrenalectomy or hypophysectomy) hormonal therapy has been greatly enhanced by the use of estrogen receptors. Their presence insures substantial response rates (55-60%) to each of these modalities.⁸

2. Head and Neck Carcinoma:

Methotrexate, 5-FU and bleomycin (30-40%) have been the most widely used drugs. Recently, combinations such as bleomycin

and methotrexate have produced 45-55% response rates. Intra-arterial therapy is indicated in select patients. Chemotherapy for thyroid carcinoma had been relatively ineffective until recently. Adriamycin has produced a 40% response rate⁹ and bleomycin has shown some activity also.

3. Lung Carcinoma.

Unfortunately, chemotherapy for lung carcinoma has not been very effective. The exception is oat cell carcinoma, for which treatment has been much more successful with 50-75% response rates being produced with multiple drug combinations such as cyclophosphamide, CCNU and methotrexate.¹⁰ The addition of anticoagulants may increase response rates.¹¹

4. Gynecologic Malignancies:

The alkylating agents (cyclophosphamide, Alkeran, chlorambucil, and ThioTepa) have produced 30-50% response rates for ovarian carcinoma and combinations have added relatively little.¹² The most used agents for cervical carcinoma are 5-FU, cyclophosphamide, methotrexate, vincristine and bleomycin which have produced 20-30% response rates. A recent combination of Methotrexate and bleomycin yielded a 60% response rate.

For endometrial carcinoma, progesterone (35%) is still the drug of choice.¹³ Recently, Adriamycin has shown some activity against this tumor. Choriocarcinoma in the female, even if disseminated, is a curable disease 70% of the time. Methotrexate and actinomycin-D have been the most effective agents.

Objective Admission Data as Predictors Of Medical School Success

AS medical school admission committees are faced with the challenging task of selecting medical students from the large and increasing number of qualified applicants each year, strong weight is placed upon the applicants' academic credentials. Those objective factors considered to be particularly important include the undergraduate grade-point average (GPA), the science grade-point average (Science GPA), and scores on the Medical College Admissions Test (MCAT). The four sections of the MCAT are usually weighed separately with greater significance being placed upon the science and verbal sections than upon the quantitative and general information portions of the test. In addition to these objective factors, interviews and letters of recommendation are employed to obtain a more subjective evaluation of the applicant.

The justification for placing significant emphasis upon the objective admissions data is the assumption that these performance measures are correlated with success in medical school. Numerous studies have, in fact, shown that the undergraduate academic record and MCAT performance are reasonably good predictors of academic success in medical school. The present study was undertaken to reevaluate the predictive value of the standard objective admissions data for a recently graduating class at the University of Nebraska College of Medicine.

METHOD

Subjects: A random sample of the 1975 four-year class graduating from The University of Nebraska College of Medicine was selected for the purposes of this study.

Measures: For each subject the following objective premedical admissions data were collected: undergraduate GPA, Science GPA, and MCAT scores in each of the four subtests (verbal, quantitative, general information, and science). Medical school success was defined in terms of the percent honors in basic sciences, percent honors in

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clinical clerkships, scores on National Boards Part I, and scores on National Boards Part II. The term "honors" is defined by the various departments individually to designate performance judged to be of superior quality. Correlations were calculated between each of the selected pre-medical objective criteria and each of the performance categories used to judge success in medical school. Several multiple correlations were also calculated between two premedical objective admissions criteria and performance on National Boards.

RESULTS

The t-test was used for testing the significance of all correlations which were calculated by the Pearson Product Moment and multiple correlation methods. Table 1 summarized the results of correlative analyses between objective pre-medical admissions data and the four criteria selected to judge medical school success. Significant correlations were found between 1) Undergraduate GPA and National Board scores Part II, 2) Science GPA and National Board scores Part I, 3) Science GPA and National Board scores Part II, 4) MCAT (Quantitative) and percent honors in basic sciences, 5) MCAT (Quantitative) and National Board scores Part I, 6) MCAT (Quantitative) and National Board scores Part II, 7) MCAT (General Information) and National Board scores Part II, 8) MCAT (Science) and National Board scores Part I, and 9) MCAT (Science) and National Board scores Part II.

DISCUSSION

The medical school admissions process at the University of Nebraska College of Medicine is designed to select the most qualified resident applicants from a very large pool of talented individuals. It is

generally conceded that there are many more academically qualified applicants than there are available spaces in medical school classes. Each year the number of applicants increases as the number of available medical school openings stays the same or increases only slightly. The academic records of selected applicants reflect this highly competitive situation as mean grade-point averages and MCAT scores increase each year. In such an atmosphere it is essential that the applicant demonstrate academic and intellectual competence. The premedical academic record and MCAT are employed to evaluate these qualifications. The basic assumption made is that these objective factors will correlate significantly with success in medical school.

This institution has changed from the standard letter grading system to an Honors/Pass/Fail system. The justification of such a grading system is being debated nationally in the field of medical education, but is not within the scope of this study. It is significant to note here, however, that this

study failed to show the predictive value of the standard admissions criteria in determining medical school success as gauged by the Honors/Pass/Fail grading system. The Quantitative MCAT score was the only premedical admission criterion which correlated significantly with grades achieved in medical school. The following possible explanations are offered. First, the Honors/Pass/Fail grading system may not discriminate as effectively among students as does the traditional letter grading system. The definition of honors is not a uniform one, as the various departments use different criteria in deciding upon the "honors" grade. This lack of standardization in the grading system may contribute to a loss in its discriminative ability. Another possibility is that we may be reaching the point where the standard objective premedical admissions criteria are not good predictors of academic success in medical school simply because of the nearly uniform academic excellence of admitted candidates. As GPAs and MCAT scores of accepted applicants increase each year, there may well be a decreasing amount of intellectual and academic variability among medical students. In other words, medical students may be becoming more academically equal as larger and larger numbers apply with clearly superior academic credentials. It would not, then, be unexpected to find poor correlations between success in medical school and premedical academic excellence.

It is to be noted, however, that significant correlations were discovered between performance on National Boards (Parts I and II) and premedical GPAs and MCAT scores. It is not surprising to find that science GPA, MCAT (Quantitative), and MCAT (Science) correlate significantly with National Boards Part I, where knowledge in the basic sciences is measured. Neither is it unexpected that these same factors and the undergraduate GPA are correlated with National Boards Part II, where clinical knowledge is tested. It is interesting to note that MCAT (General Information) was found to correlate with National Boards Part II.

The multiple correlative analyses demonstrate that even better predictability can be achieved if more than one premedical

TABLE 1
Pearson Product Moment Correlation Coefficients
Between Premedical Objective Admissions
Criteria and Medical School Performance

	Honors Clinical Clerkships	Honors Basic Sciences	Score Nat'l. Boards Part I	Score Nat'l. Boards Part II
Undergraduate GPA	.225	.262	.011	.327*
Science GPA	.129	.274	.377*	.358*
MCAT (Verbal)	.042	-.279	-.026	.125
MCAT (Quantitative)	.088	.340*	.502*	.411*
MCAT (General Info.)	.062	-.149	.172	.302*
MCAT (Science)	.082	.221	.472*	.461*

* $p < .05$

Table 2 shows the results of the multiple correlation coefficients between two pre-medical objective criteria and performance on National Board scores — Parts I and II.

TABLE 2
Multiple Correlation Coefficients Between
Selected Premedical Objective Admissions Criteria
and National Board Scores Parts I and II*

	Science GPA and MCAT (Science)	MCAT (Science) and MCAT (Quantitative)
National Boards Part I	.562	.688
National Boards Part II	.544	.523

*All correlations shown are significant at $p < .05$

objective admissions criterion is compared to National Board performance. This was most convincingly demonstrated when MCAT (Science) and MCAT (Quantitative) were correlated at nearly the .7 level with performance on National Boards Part I. It is possible that an even higher correlation could have been achieved if more than two admission variables were collectively correlated with National Boards Part I.

SUMMARY

Although this particular study failed to confirm the validity of standard admissions criteria as predictors of grades in this medical school where an Honors/Pass/Fail

system is used, it did show significant correlation between most of the standard admissions criteria and performance on National Boards Part I and II. If we can accept the validity of National Boards performance as one indication of success in medical school, then we can quite readily support our emphasis on the standard admissions criteria in the medical school admissions process. We may well be able to support that emphasis on other grounds as well, but we have, on the basis of this study, at least some statistical justification for our emphasis on the undergraduate academic record, and the MCAT in the complex process of medical school admissions.

Down Memory Lane

1. The relation of focal infection to systemic disease has been recognized for more than 100 years, but it is only within this last couple of decades that the research scientists have put it upon a more definitely established basis.

2. The value of kidney transplantation as a clinical measure is questionable with our present knowledge, although under proper conditions it might be worthy of serious consideration.

3. Orthopedic surgeons get the left-overs, to a great extent, and contractures of the knees are some of the left-overs we get.

4. We are beginning the fifty-ninth year of organized medicine in Nebraska.

5. There are fifteen malpractice suits pending in the courts at this time.

6. Apparently dope fiends are again abroad in this state, for several medicine cases have been reported stolen and when

found were rifled of narcotics contained therein.

7. In most cases in children, it is the animal dandruff that causes your asthmas.

8. Standardization of those who engage in the healing art must come. Education in the sciences fundamental to medicine is considered by all educators of note as the proper move in this direction.

9. I tried to take a patient off wheat some time ago, and endeavored to find a rye bread in Omaha, but I found there is not a rye bread made here. The so-called rye breads have at least 25 per cent of wheat flour.

10. A typhoid fever epidemic of considerable proportion, supposedly milk-borne, was reported at Hastings last month.

Nebraska State Medical Journal
January, 1927

PRESIDENT'S PAGE

AMA

In the face of a changing White House whose attitude toward our profession is ambiguous and possibly very dangerous, we need UNITY as never before.

And this means having an American Medical Association that is buttressed by unified membership. Only the AMA has the moxie, the expertise, and the experience to fight all our joint fights.

But in Washington's gimlet eyes, those qualities are diluted unless the AMA also has great numerical strength. And that's where you come in — you as individuals and as component societies.

Calling for unity against our common dangers is not a case of the boy crying "Wolf!" against make-believe wolves. The wolves are all too real. Consider some of them.

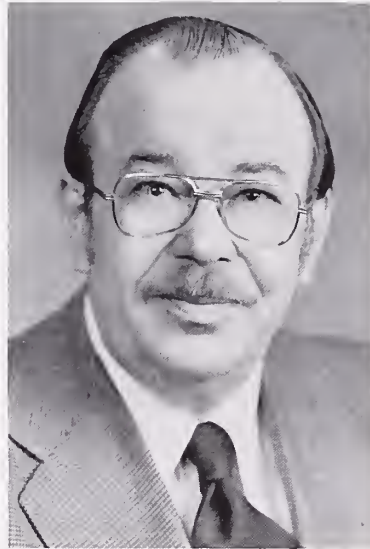
Regardless of a distaste for specifics, President-elect Carter has made it pretty clear that he will take an activist stance on health issues.

The sociologically oriented freshmen of the last Congress will be back in force, and without fear of Presidential vetoes.

You can expect moves for a heavily federalized, blow-by-blow form of National Health Insurance, with the Social Security Administration as its mis-manager.

You can expect a drive for an even more repressive and arbitrary Health Planning Act (which comes up for renewal in 1977) provided this act survives the joint lawsuit of the AMA and the States of North Carolina and Nebraska. The drive could include an amendment mandating all states to regulate health-care rates.

You can expect a move to expand Medicare-Medicaid benefits without increasing the cost. How would this sleight of hand be achieved? By greater reliance on allied health professionals.



You can expect intensified efforts to federalize the standards for medical licensure and tilt the pharmaceutical wheel toward generic simulations.

How effectively can the AMA resist all the threats?

Well, ponder what it achieved in the last Congress. As the objective *National Journal* stated the AMA got the fangs taken out of health-manpower legislation. It got the PSRO law amended to permit statewide PSROs and affirm the limitation of review to samples. It got the HMO Act amended, so that individual employees (including union members) can decide on their own whether to enroll in an HMO. It helped hold the line on NHI.

The AMA did all of this while forging ahead on many other programs — such as honing the skills of component societies in negotiating with third parties; expanding its program of continuing education; pressing its suit against the MAC rules; pressing for action against the Medicaid fraud that some politicians are using to smear our whole profession; establishing a firm (AMACO) to

reinsure physician-controlled professional-liability programs.

The AMA's achievements have been your advantages. Its future and yours are one and inseparable. The AMA has been and is responsive to the needs of the practicing

Nebraska physician. Your membership in the AMA is a paving block in your only sure road to a good tomorrow.

Harlan L. Papenfuss, M.D.
President

University of Nebraska State Museum Health Galleries

THE CAMPAIGN IS ON! Support is being received from members of the medical community for the development of the Health Galleries at the University of Nebraska State Museum. The fund drive is the project of the Auxiliary to the Nebraska Medical Association. The Auxiliary encourages your donation as an investment in a positive health education center.

The Nebraska Medical Association has given full support to this project. On October 2, 1976, the House of Delegates of the

Association urged "each and every member to generously support this project and to ask each constituent society to appoint a local chairman to aid the Auxiliary in their efforts to raise these funds." The House also approved the proposal that "each member of the Nebraska Medical Association be asked to pledge a minimum of \$200 over the next three years."

Recognition will be given to individuals and medical organizations that have invested in this project as follows:

Donors for specific exhibits (name on exhibit)	\$5,000-\$25,000
Patrons (name on patron plaque) ...	\$1,000-\$ 4,999
Sponsors (certificate of appreciation)	\$ 100-\$ 999
Other supporters (recognition in museum notes)	\$ 10-\$ 99

HEALTH GALLERIES DONOR LIST

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Center

This list will appear monthly during the fund-raising campaign. Every effort will be made to give proper recognition to all supporters of this project. If you find an error has been made or your donation omitted, please contact the University of Nebraska Foundation, P.O. Box 30186, Lincoln 68503.

Helen L. Hayes, (Mrs. O. R.)
State Chairman, Health Galleries
Fund Raising Committee
Nebraska Medical Association Auxiliary

Our Medical Schools

Help for heart disease patients.

Persons with cardiovascular disease may avoid dangerous and unneeded surgery because of a new instrument designed by a University of Nebraska Medical Center physician.

The instrument, called a potentiator, can help physicians determine if coronary bypass surgery would be necessary by detecting the extent of damage to the heart muscle after a heart attack, said Dr. Gerald L. Wolf.

Dr. Wolf, an associate professor of pharmacology and radiology, explained that bypass surgery may be required when the coronary artery is partly blocked and cannot carry enough blood to the heart muscle, making the implant of a new vessel necessary.

Dr. Wolf said bypass surgery would be useless for a patient with dead heart muscle, while living heart muscle could be returned to useful function with the added blood supply.

To identify an incapacitated muscle, Dr. Wolf said an "electronic trick is played on the heart." By electronically stimulating the heart muscle at the right time through a catheter, the potentiator can cause the heart to skip a beat, giving the muscle more time to rest and gather blood for the next beat.

During normal beats, the incapacitated living muscle will remain inactive; but given additional rest and blood, the muscle will

contract on the next beat, which can be electronically viewed during heart catheterization.

Psychiatry chairman steps down.

Beverley T. Mead, M.D., has requested that he be allowed to step down as Chairman of the department of psychiatry at Creighton University's School of Medicine effective January 1, 1977.

Dr. Mead indicated a desire to devote more time to the practice of psychiatry, research and other professional activities. He will continue to serve as a full-time professor in the department of psychiatry.

ENT at U of N.

The University of Nebraska Medical Center's Center for Continuing Education will offer a course in otorhinolaryngology February 3 and 4, 1977.

Dr. Anthony Yonkers, chairman of the department of otolaryngology and maxillo-facial surgery at the Medical Center, is coordinator of the course.

A course on diagnostic innovations in neurology will be offered Thursday and Friday, February 24 and 25. Dr. Robert D. Shoumaker, assistant professor of neurology, is coordinator of the course. Registration fee is \$70.

20
150

H

20
100

E A R

20
70

I N G I S

A S P R E C I O U S

A S S I G H T H A V E

Y O U H A D Y O U R H E A R I N G

T E S T E D L A T E L Y A S I M P L Y

C O M F O R T A B L E H E A R I N G

I N V E S T M E N T O F A F E W M I N U T E S

Hearing losses are among the most consistently neglected health problems. Many people with them won't even admit it to themselves, let alone others. A little encouragement may start them thinking about themselves more realistically.

That's why we're offering you the poster shown here. You can hang it on the wall or stand it on a small table. It comes with booklets called "As precious as sight" that give your patients some basic facts about auditory testing and hearing losses and how easy they are to correct in many cases.

Write to us for your free poster and booklets. They just might help you to help some patients who aren't hearing as well as they used to. Even those who ordinarily wouldn't hear of it.

Professional Relations Division, Beltone Electronics Corporation
4201 West Victoria Street, Chicago, Illinois 60646, an American company

Beltone
WHEN A HEARING
AID WILL HELP



WHEN
BURNING PAIN
COMPLICATES
ACUTE
CYSTITIS*

TURN IT OFF WITH

AZO GANTANOL[®]

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

FOR THE PAIN

- Quickly relieves painful symptoms such as burning and pain associated with urgency and frequency.
- Recommended antibacterial therapy: up to 3 days with Azo Gantanol, then 11 days with Gantanol (sulfamethoxazole).

FOR THE PATHOGENS

- Effectively controls susceptible pathogens such as *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

*nonobstructed; due to susceptible organisms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis*, and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies.

Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura,

hypoprothrombinemia and methemoglobinemia); allergic reactions (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); G.I. reactions (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); CNS reactions (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); miscellaneous reactions (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Azo Gantanol is intended for the acute, painful phase of urinary tract infections. Usual adult dosage: 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

NOTE: Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

DYAZIDE[®]

Trademark

MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION*

Each capsule contains 50 mg. of Dyrenium[®] (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.



Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

WARNING
This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Indications: When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

Contraindications: Further use in progressive renal or hepatic dysfunction; hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs. Routine use of diuretics in otherwise healthy pregnancy.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with

cardiac irregularities. It is more likely in severely ill patients with urine volume less than one liter/day, the elderly or diabetics, with suspected or confirmed renal insufficiency. Periodic determinations of serum K⁺ should be made. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. The presence of a widened QRS complex or arrhythmia in association with hyperkalemia requires prompt additional therapy. Thiazides are reported to cross the placental barrier and appear in breast milk; fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and other adverse reactions that have occurred in the adult may result. When used in pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium[®] (triamterene, SK&F Co.), and

leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotics to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion, since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

SK&F CO., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation

**TRIAMTERENE CONSERVES POTASSIUM WHILE
HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE**

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CODEINE COMBINATION PRODUCTS.
YOU MAKE THE CHOICE.**



**EMPIRIN[®]
COMPOUND
c̄ CODEINE
#3**

Each tablet contains:
codeine phosphate, 32 mg (gr ½),
(Warning: May be habit-forming);
aspirin, 227 mg; phenacetin, 162 mg;
and caffeine, 32 mg.



**EMPRACET[™]
c̄ CODEINE
#3**

Each tablet contains:
codeine phosphate, 30 mg (gr ½),
(Warning: May be habit-forming);
and acetaminophen 300 mg.



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Between Cases

Words I Can Do Without.

Ambulate, confluence, timeliness, disquisition, maximumly.

The History.

He has no plans because of his illness for getting married.

Department Of Statistics.

About 400,000 cholecystectomies are performed each year in North America.

The Diagnosis.

Probable chronic herniated nucleus pulposus at L-5 level is possible.

Classical Language Department.

Aegrescitque medendo: and he grows worse by the remedy.

On Amputating.

Any fool can cut off a leg, but it takes a surgeon to save one.

Finney

The Physical.

He has a left ulcer on his leg.

I Read It Somewhere.

The Lord is voting for you. The devil is voting against you.

You have the deciding vote.

Anon.

Department Of Definitions.

The Dark and Middle Ages: a thousand years without a bath.

Ibid.

The Conclusion.

Conclusions were that the kidneys were not huge nor were they small.

O To Be In England.

I have read that the commonest diagnosis in patients under 50 (about 2.5% of admissions, or 100,000 people admitted each year) in England and Wales, is self-poisoning or self-injury.

Quote Unquote.

Hope is a good breakfast, but it is a bad supper.

Bacon

On Writing.

Good English does consist in the main of short words.

Fowler

On Teachers.

There is no better teacher than another child.

Mary MacCracken: Lovey — A very special child.

Heard On TV.

He was in critical condition, but he has improved, and he is now in a serious condition.

—F.C.

Picture Gallery

Nebraska Medical Association Fall Session,
September 30 - October 1 & 2, 1976

NMA House of Delegates



Welcome New Members

G. L. McLean, M.D.
2300 South 16th Street
Lincoln, Nebraska 68502

Robert G. Pelley, M.D.
Cottonwood Clinic
Tekamah, Nebraska 68061

WashingtonNotes

Inserts.

Patient package inserts for almost all drugs, one of the major demands of the consumer movement, with their attending problems and concerns were discussed at a two-day symposium here recently. The session was sponsored by the AMA, the Drug Information Association, the Food and Drug Administration and the Pharmaceutical Manufacturers Association.

The patient insert should not be confused with the package insert. Years ago Congress approved the requirements for the package insert for prescription drugs, apparently in the mistaken belief much of this information would get to the patient. Most of it went to pharmacists; none was required to be given to patients.

FDA Commissioner Alexander Schmidt, M.D., told the symposium the consumer as a right to know about the medicine he is taking. "There is increasing evidence that a high proportion of Americans either do not understand the prescription instructions or do not follow them," Dr. Schmidt said. He contended there is a lack of effective communication often between physician and patient on drug information.

The information supplied patients must not be as detailed as the warnings required in advertising. This would be "an invitation of hypochondria," said Dr. Schmidt. Rather the information should be in plain English, factual, and explain why the drug is being taken, major side-effects to watch out for, and when to report reactions to the physician.

William Barclay, M.D., AMA Group Vice

President for Scientific Publications, said carefully prepared information about selected drugs is desirable and could be of service to patients, physicians and pharmacists. However Dr. Barclay cautioned that there is a clear danger that the disclosure could be so alarming as to discourage use of drugs that are vitally needed.

One of the major questions to be answered is how the insert would be distributed. "Obviously, the physician would rather not have the responsibility of stocking in his office perhaps thousands of brochures," he said.

Dr. Barclay noted that labelling has had little effect on cigarette smoking. He also noted that one of the most powerful drugs available with all sorts of adverse reactions and addiction potential would not be covered by the patient insert — alcohol.

Joseph Onek, Counsel for the Center for Law and Social Policy, said physicians don't have the time to tell their patients all they need to know about drugs. Patients forget anyway. He suggested that a priority list be made up for the inserts, starting with all drugs used in pregnancy, then tranquilizers and barbiturates.

Right to know & privacy.

The Social Security Administration is asking the public for help on how much information, including medical data, should be disclosed from Social Security records.

"An important issue underlying these laws is the basic conflict between the public's right to know and the right of privacy of

the people whose records are kept by Social Security," SSA Chief James Cardwell said. "We will need to resolve that conflict in our regulation, and we want the public's help."

Social Security said the revised regulation must address the basic information about an individual collected for purposes of administering the Social Security Act vs. interchange of such information with state or federal agencies to further efficient administration of other benefit programs, or to meet other governmental needs — a further concern is the public's right to know.

Who made us healthier?

That medicine has had little to do with the improvement in mankind's health over the past several hundred years was the attention getting gist of the opening address theme of the annual meeting of the Institute of Medicine here.

There was some sharp disagreement with the speech by Thomas McKeown, M.D., Professor of Medicine at the University of Birmingham, England, but Dr. McKeown insisted that "human health is determined mainly by way of life," not medical advances.

According to Dr. McKeown, the decline of mortality and growth of population started at the end of the 1600s when farmers began a more scientific and diligent approach to producing crops. "This increase in food supplies between the end of the 17th century and the mid-1800s coincided with a substantial reduction of mortality from infectious diseases — and, it is suggested, was the main reason for it."

Powerfully supporting this progress was improved hygiene affecting the quality of food and water in the late 1800s, Dr. McKeown said. "The contribution of immunization and therapy has been recent and, over the whole period, relatively small."

Some institute members contended that Dr. McKeown was shortchanging the effect that immunizations and the post-1935 development of antibiotics, etc., have had on health. The speaker conceded that these have had a significant impact, but he said that in viewing huge population masses the new treatments do not loom large statistically in comparison with the general improvements in living conditions.

Too many beds?

A National Academy of Sciences panel has called for a 10 percent decrease in the ratio of hospital beds to population. Claiming that a surplus of short term general care beds is contributing to higher medical costs. The panel said a national health planning goal should be to reduce the present ratio of 4.4 beds per 1,000 persons to 4.0 by 1981.

This would be accomplished by curtailing hospital construction and closing down some existing hospital facilities.

Panel member John D. Thompson, M.S., of Yale University estimates that about 50,000 hospital beds which are now either in use or slated for construction would have to be eliminated. He and the panel stressed the need for waiting periods for elective surgery as a way to increase hospital efficiency and occupancy rates.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS

January 29 — Norfolk, Elks Lodge

February 12 — Scottsbluff, St. Mary's Hospital

CORONARY CARE AND THE PRACTICING PHYSICIAN, February 16-18, 1977, Creighton Health Center, 10th and Dorcas, Omaha, Nebr. Sponsored by Creighton University School of Medicine. This continuing medical education offering meets the criteria for 20 hours credit in Category 1 for the Physicians Recognition Award of the AMA, and is acceptable for 20 prescribed hours credit by the AAFP. Course fee: \$150. For more information contact Medical Dean's Office, Continuing Education Coordinator, Creighton University, 2500 California, Omaha, Nebr. 68178; phone 402/449-2900.

NEBRASKA ACADEMY OF FAMILY PHYSICIANS — Annual Scientific Session, March 24-25, 1977, Cornhusker Hotel, Lincoln, Nebraska.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

INDIANA CHAPTER ACEP-EDNA EMERGENCY MEDICINE SEMINAR will be held at the Airport Hilton Inn, Indianapolis, Indiana on May 11 through May 14, 1977. CME Credits Applied For: 20 hours; Co-sponsor: Indiana University School of Medicine. Fee: \$50.00 - \$100.00. Contact: David Gettle, M.D., 10005 Hillsdale, Carmel, Indiana 46032, 317-844-7105. Note: This seminar is in conjunction with the first day of Time Trials for the Indianapolis 500 Memorial Day Race.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, Fairmont Hotel, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 - October 1 & 2, 1977, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — Interim Session, House of Delegates, December 4-7, 1977, Palmer House, Chicago, Illinois.

AMERICAN MEDICAL ASSOCIATION — Winter Scientific Program, December 10-13, 1977, Miami, Florida.

COLONOSCOPY TRAINING PROGRAM — The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians

and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community

where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

The Letter Box

Dear Editor:

For a biography of Dr. Alton Ochsner of Ochsner Clinic, New Orleans, opinions, evaluations, anecdotes, reminiscences, photos are needed. Photos will be carefully handled and returned. All material gratefully received by

Sincerely yours,
Ira Harkey, PhD
401 Metairie Road, 706
Metairie, Louisiana 70005

Dear Dr. Cole:

I'm preparing a report for the Editors' Section of the American Medical Writers Association meeting in October. I'll appreciate your comments very much.

Hope all goes well with you. I miss seeing your editorials!

Herbert L. Hartley, M.D.

Books



The AMA book of skin and hair care; edited by Linda Allen Schoen; prepared in consultation with members of the AMA committee on cutaneous health and cosmetics; paperback \$4.95, cloth \$8.95; published 1976 by J. B. Lippincott Co.

The book was copyrighted in 1976 and in 1971, and was formerly *The look you like*. It is a collection of (I counted) 395 questions and answers taken from AMA Today's health.

There is unfortunately no index.

It is divided into three sections: cosmetic, hair, and skin. There are 352 pages. The printing is good, and reading is easy. Question-and-answer books are easy to write and nice to read. Most of the answers are good. Some, as the one on preshave preparations, do not fully answer the question; and the last one in the book does not answer at all.

But it is more than a good book; it is excellent.

—F.C.

Physiologic Responses of Men 40 to 65 Years of Age to Endurance Training — M. L. Pollock et al (Institute for Aerobics Research, 11811 Preston Rd, Dallas 75230) J Am Geriatr Soc 24:97-104 (March) 1976.

A study was made of the effects of training for 30 minutes, three days a week for 20 weeks on certain physiologic measures of sedentary men between the ages of 49 and 65. Twenty-two persons volunteered for the experimental group, and eight others for the control group. Exercise sessions were conducted on a quarter-mile track and consisted of continuous bouts of walking and jogging. The average daily energy expenditures progressed from 228 to 365 kilocalories between weeks four and 20. For the same period, average exercise heart rates (HRs) progressed from 149 beats/minute (83% maximum HR) to 155 beats/minute (91% maximum HR). The experimental group showed substantial increases in maximum oxygen intake (VO_2^{max}) from 2.47 to 2.90 liters/minute (18%) and in maximum pulmonary ventilation from 105 to 121 liters/minute, and decreases in resting HR, diastolic blood pressure, body weight, skinfold fat, and abdominal girth. Serum cholesterol and triglyceride levels and heart volume remained unchanged. The control persons showed no important changes. Regression analysis, with the use of

age as a covariate, showed a small but significant inverse relationship with changes in VO_2^{max} . Men of the 49- to 65-year age group respond favorably to endurance exercise and show a magnitude of change similar to that found in previous investigations of similar design with younger persons.

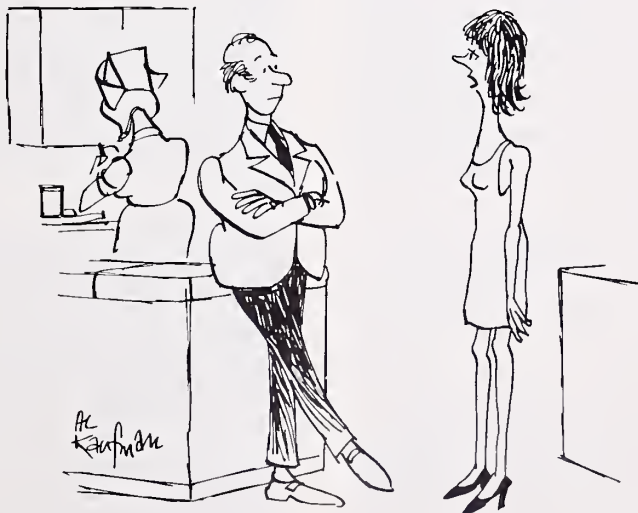
Familial Incidence of Crohn Disease — M Morl et al (Stoffwechselklinik der LVA Wurttemberg, Bad Mergentheim, West Germany) Dtsch Med Wochenschr 101:493-496 (March 26) 1976.

Crohn disease was diagnosed in a 49-year-old man, his 22-year-old son, and two daughters, aged 21 and 25. The father's illness began at the age of 30, while that in the children had its onset between the 13th and 20th year and had already extended to the ileum and colon by the time the diagnosis was made. Crohn disease and ulcerative colitis may have a common genetic basis, which with a complete gene set gives rise to Crohn disease but with a less complete gene complement ulcerative colitis.

* * *

Anatomy is to physiology as geography to history; it describes the theater of events.

Jean Fernel.



"I'm suffering from shortness of breadth."

JUN 25 1977

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OF MEDICINE

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Physicians' Classified

TWO FAMILY PHYSICIANS with large hospital practice wish third associate, who is Board Eligible, to join busy family practice. Located in Waterloo, Iowa, a northeast Iowa community of 75,000. All records dictated on the Problem Orientated Medical Records System. Contact: Drs. Ronald D. Flory and Ronald R. Roth, 611 Black's Bldg., Waterloo, Iowa 50703.

PHYSICIAN NEEDED — A physician is needed to practice in the Nebraska Penal and Correctional Complex hospital and clinic. Located in Lincoln, Nebraska, a clean, progressive community with an excellent school system and colleges. Contact Gary Burger, Personnel Director, Department of Correctional Services, Box 94661, Lincoln, Nebraska 68509.

PSYCHIATRIC RESIDENCY: Vacancies for positions for July 1, 1977, for those who have a regular Iowa License or can obtain one by reciprocity or Via FLEX. Prepare for career in private practice, community clinics or hospital-based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. The stipends are: 1st Yr. \$21,294; 2nd Yr. \$22,360; 3rd Yr. \$23,478. Intensity and diversity of training program appreciated best by personal visit. T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal Opportunity Employer. Call Collect: 712-225-2594.

ASSOCIATE DIRECTOR FOR FAMILY PRACTICE RESIDENCY PROGRAM — Newly-developed Family Practice Residency Program serving Waterloo-Cedar Falls area needs Associate Director to start February, 1977. Position involves teaching and supervision of Residents plus direct patient care. New 7,000 sq. ft. model office. Program is affiliated with the University of Iowa College of Medicine and offers an opportunity for a more relaxed practice of medicine plus academic advantages. Adequate salary plus fringe benefits equal to 20% of base salary. Ample vacation and opportunity for postgraduate study. Contact: Charles A. Waterbury, M.D., Program Director, 635 Black's Building, Waterloo, Iowa 50703.

FOR SALE: Doctor's office with full line of equipment one-year old. Three examining rooms, X-ray, laboratory, and office. 30-bed hospital 15 minutes away. Contact: L. Jay McIntyre, M.D., P.O. Box 245, Wolbach, Ne. 68882.

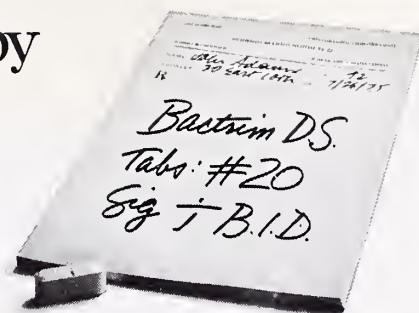
ONE OF LINCOLN'S finest Medical-Dental Office Buildings will have available after November 1, 1976, one large and one medium sized medical office suite. Will redecorate or redesign to suit tenant. Please contact Dick Gaughan, 489-2718 or Dr. T. L. McKee, 489-5440 or call at Business Office, Suite 1600, 5440 South Street.

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OB-GYN, UROLOGY, AND ORTHOPEDIC specialties to join an established successful practice with 15-man multi-specialty group. Excellent group benefits; retirement plan; modern clinic facilities; progressive community with excellent educational system including two colleges; area population 75,000; great recreational facilities; must be board eligible or certified; Contact: Business Manager, The Manitowoc Clinic, 601 Reed Avenue, Manitowoc, Wisconsin 54220.

PHYSICIAN III VACANCY. Duties: Conducts medical services for the legal offenders of the Nebraska Penal Complex. Specific duties include: examinations of incoming offenders, diagnosis of presently incarcerated offenders to determine treatment, minor surgical procedure, and all other requirements of the medical needs of the offender population. **Qualifications:** Medical Degree and licensing in the State of Nebraska. Three years of residency in an approved hospital plus eligibility for certification in a specialty field. **Salary Range:** \$34,440 to \$48,216. If interested, contact Karen A. Grover, Placement Officers, State Department of Personnel, State of Nebraska, Lincoln, Nebraska 68509 Telephone: (402) 471-2075.

7-day Bactrim therapy outperforms 10-day ampicillin therapy.



In a multicenter, double-blind study of patients with chronic or frequently recurrent urinary tract infection, Bactrim 10-day therapy outperformed ampicillin 10-day therapy by 27.2%, when comparing patients who maintained clear cultures for eight weeks. Criterion for "clear culture" was 1000 or fewer organisms/ml of urine.

While adverse reactions noted in this study were mild (e.g., vomiting, nausea, rash), more serious reactions can occur with these drugs. See manufacturer's product information for complete listing. Maintain adequate fluid intake; perform frequent CBC's and urinalyses with microscopic examination.

Note: Bactrim tablets were used in these clinical trials. Bioequivalence studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli*, *Klebsiella aerobacter*, *Proteus mirabilis*, *Proteus vulgaris* and *Proteus ganii*.

Caution: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections. The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Fever, throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy maintain adequate fluid intake and perform frequent urinalyses, careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoproliferative thrombocytopenia and methemoglobinemia. *Allergic reactions:* Erythema

multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-flavored—bottles of 16 oz (1 pint).



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

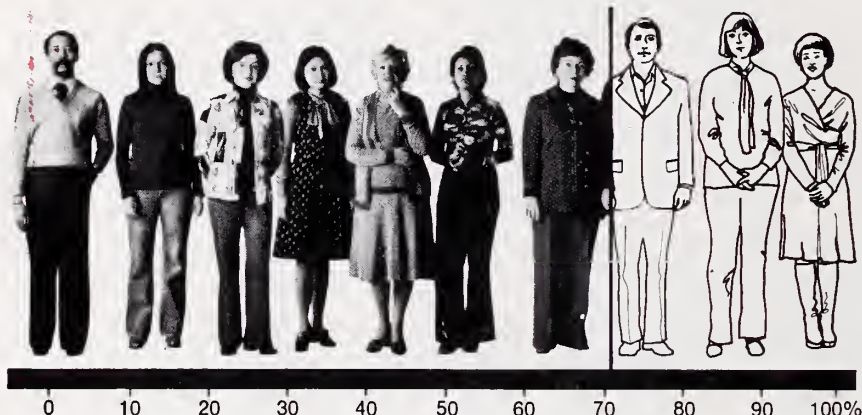
In a multicenter study of patients with chronic or frequently recurrent urinary tract infection

Bactrim was 27.2%* more effective than ampicillin in keeping patients infection-free for 8 weeks.†

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Bactrim—70.5% of 78 patients infection-free at 8 weeks.



ampicillin—55.4% of 74 patients infection-free at 8 weeks.

*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey 07110

BactrimTM DS
(160 mg trimethoprim and 800 mg sulfamethoxazole)

**Double Strength tablets
Just 1 tablet B.I.D.**

Please see summary of product information on preceding page.

ROCHE

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

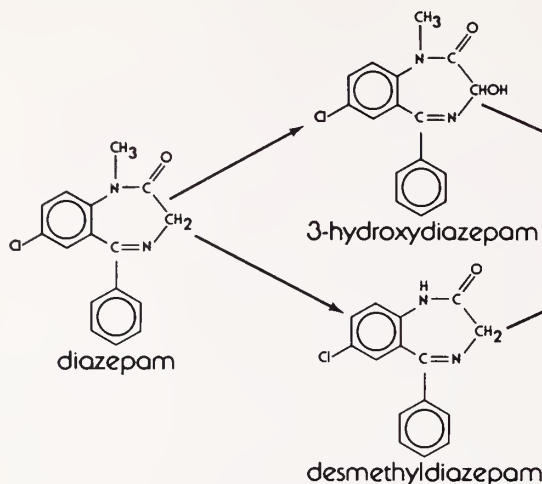
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The Nebraska Medical Journal

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February, 1977

A pharmacokinetic character all its own



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Valium® (diazepam) ^{IV}

2-mg, 5-mg, 10-mg scored tablets
**a prudent choice in psychic
tension and anxiety**

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due

to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated:

Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma;

may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
3901 So. 27th St., Lincoln 68502

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Each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine HCl, and 2 mg phenobarbital; the alcohol content is 15%

See next page for brief summary

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Description. Tedral: each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital.

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Tedral Elixir: each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine hydrochloride, and 2 mg phenobarbital; the alcohol content is 15%.

Indications. Tedral, Tedral SA, and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal or perennial asthma.

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Precautions. Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

Adverse Reactions. Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

Average Dosage. *Prophylactic or Therapeutic.*

Tedral: Adults—One or two tablets every 4 hours. **Children**—(Over 60 lb) one-half the adult dose.

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Tedral Elixir: Note: One teaspoonful is equivalent to *one-quarter* Tedral tablet. **Children**—One teaspoonful per 30 lb body weight, every 4-6 hours, unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution. **Adults**—One to two tablespoonfuls every four hours.

Supplied. Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

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The Editor of this Journal assumes no responsibility for opinions and claims expressed in the articles published herein.

Manuscripts to be presented for publication in the JOURNAL should be typewritten, double-spaced, on one side only of firm (not onion skin or flimsy), standard letter size (8½ by 11 in.) white paper. Wide margins (at least 1¼ in. on left) should be left free of typing. On the first or title-page should be shown the title of the article, the name (or names) of the author, his degree and other significant credits. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Illustrations should be numbered and their locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be black (India ink) on pure white. Photographs should be on glossy paper and a minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

Manuscripts (original, not a carbon) should be sent directly to the Editor at the Journal's address.

Letters to the Editor submitted for publication should be prepared as above, and must carry the notation: To be Published.

Reprints should be ordered from the printer, Norfolk Printing Co., Inc., P. O. Box 278, Norfolk, Nebr. 68701.

Track and Field Star, Jesse Owens to speak at the NMA 109th Annual Session on Tuesday, May 3, at the Holiday Inn of Omaha, 3321 So. 72nd Street

Today, 40 years after earning the title of the 'World's Fastest Human' in the 1936 Olympics, Jesse Owens continues in the front ranks of athletes. He is committed to making available better and more educational opportunities for all young and has established the Jesse Owens Educational Foundation. In 1976, President Ford presented Owens the Medal of Freedom, the highest honor the United States can bestow upon a civilian. Now residing in Phoenix, Ariz., this Olympian serves on the Boards of Memorial Hospital, National Conference of Christians and Jews and Boys Town. He set world records in the dash and brood jump . . . and his brood jump record stood until 1960, some 24 years.



Hear Jesse Owens at the NMA Subcommittee on Athletic Injuries' Athletic Medicine Luncheon

Registration Forms for the Session and Ticket Forms
will be distributed in early April

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When Big Ben looks "a little off"...

Antivert[®]/25 (meclizine HCl) 25 mg. Tablets for vertigo*

■ **Most Widely Prescribed**—Antivert is the most widely prescribed agent for the management of vertigo* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.

■ **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo*.

■ **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

***INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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Lasix[®] Tablets (furosemide) 20mg and 40mg in hypertension.

Lasix Tablets have
been shown to reduce
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Lasix. For the
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Please see other side of this advertisement for prescribing information.

Lasix® Tablets (furosemide) 20 mg and 40 mg in hypertension.

A brief summary of the Prescribing Information for
Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO₂ and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperkalemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its deriva-

tives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD₅₀ of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD₅₀ ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD₅₀ of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 1 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 15 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



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A red octagonal stop sign with a white border. The word "STOP" is written in large, white, bold, sans-serif capital letters in the center. Above it, the word "Temporarily" is written in a smaller, white, sans-serif font. Below it, the words "Unproductive Coughs" are written in the same smaller, white, sans-serif font.

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ADULT—2 tsp every 4 hours
not to exceed 6 doses in 24 hours

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6-12 years 1 tsp every 4 hours
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CATIONS: Therapeutically (as an adjunct to systemic therapy when indicated) topical infections, primary or secondary, due to susceptible organisms, as in infected burns, skin grafts, surgical incisions, otitis externa • primary dermatoses (impetigo, ecthyma, sycosis vulga, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

hyallactically, the ointment may be used to prevent bacterial contamination in skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS:** Not for use in the eyes or in the ear canal if the eardrum is perforated. This product is contraindicated in individuals who have shown hypersensitivity to any of the components. **WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to



neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. **PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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Harvard Medical School's Ned Cassem To Be Medicine and Religion Dinner Speaker



at The NMA's 109th Annual Session,
7 p.m., Sunday, May 1,
at the Holiday Inn of Omaha,
3321 So. 72nd Street

Edwin Hughes (Dr. Ned) Cassem is Associate Professor of Psychiatry at Harvard Medical School in Boston, Mass. Dr. Cassem's articles on death and acceptance of death have been widely published. He is Project Supervisor for the Pastoral Encounters with the Disabled and Dying, Youville Hospital, Cambridge, Mass., and Boston Theological Institute. He is Director of Liaison Psychiatry at Massachusetts General Hospital in Boston. Dr. Cassem is a Trustee of Creighton — Nebraska Universities Health Foundation, member of the Editorial Board, Heart and Lung, Canadian Institute of Religion and Gerontology, and Chairman of the Jesuit Council for Theological Reflection.

Medicine and Religion Dinner sponsored by the
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Registration Forms for the Session and Ticket Forms
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**Health care doesn't
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Mailgram 2

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it does not enforce the same standards for hundreds of "follow-on" products that it had applied to the original FDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



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and for good reasons. Diet alone doesn't always work. CHOLOXIN[®] (sodium dextrothyroxine) has proved itself to be an effective cholesterol lowering adjunct to diet in euthyroid, non-cardiac patients. It has undergone ten years of clinical trials and eight years of practice. The clinical trials consisted of 337 clinical studies involving over 3,000 hypercholesterolemic non-cardiac patients. It is among the most thoroughly evaluated drugs ever presented to physicians.

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CHOLOXIN (sodium dextrothyroxine) lowers cholesterol 15% to 35%, and keeps it down with most patients. (*Data on file, Flint Laboratories*).

Interested in receiving more information about lipid lowering? Write us or contact your Flint representative. We'll be glad to supply you with a complete product portfolio and samples for your evaluation.

NOTE: See following page for full prescribing information.

AN IMPORTANT NOTE:

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.



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See prescribing information in package insert reproduced below.

	Starting Dosage	Increased Monthly by	Usual Maintenance	Maximal Recommended
Adult Hypercholesterolemic	1.0-2.0 mg.	1.0-2.0 mg.	4.0-8.0 mg.	4.0-8.0 mg.
Pediatric Hypercholesterolemic	0.05 mg./kg. body weight	0.05 mg./kg.	0.1 mg./kg. body weight	4.0 mg.
Hypothyroid Cardiac	1.0 mg.	1.0 mg.	4.0 mg.	4.0 mg.

Choloxin® (Sodium Dextrothyroxine)

Description

CHOLOXIN (sodium dextrothyroxine) is the sodium salt of the dextrorotatory isomer of thyroxine. It is chemically described as D-3,5,3',5'-tetraiodothyroine sodium salt.

Actions

The predominant effect of CHOLOXIN (sodium dextrothyroxine) is the reduction of serum cholesterol levels in hyperlipidemic patients. Beta lipoprotein and triglyceride fractions may also be reduced from previously elevated levels.

Most of the available evidence indicates that CHOLOXIN (sodium dextrothyroxine) stimulates the liver to increase catabolism and excretion of cholesterol and its degradation products via the biliary route into the feces. Cholesterol synthesis is not inhibited and abnormal metabolic end-products do not accumulate in the blood.

Indications

This is not an innocuous drug. Strict attention should be paid to the indications and contraindications.

CHOLOXIN (sodium dextrothyroxine) is an antilipidemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease.

The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication.

Before prescribing, note the following: Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation. There may be an additive effect. This additive effect may possibly stimulate the myocardium excessively, in patients with significant myocardial impairment. CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly. Careful monitoring of the total effect of both drugs is important.

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Contraindications

The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated:

1. Known organic heart disease, including angina pectoris; history of myocardial infarction; cardiac arrhythmia or tachycardia, either active or in patients with demonstrated propensity for arrhythmias; rheumatic heart disease; history of congestive heart failure; and decompensated or borderline compensated cardiac status.
2. Hypertensive states (other than mild, labile systolic hypertension).
3. Advanced liver or kidney disease.
4. Pregnancy.

5. Nursing mothers.

6. History of iodism.

Warnings

CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time. Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment.

In the surgical patient, it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated.

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease, treatment should be initiated with care. Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required. This drug may increase the oxygen requirements of the myocardium, especially at high dosage levels. Treated subjects with coronary artery disease must be seen at frequent intervals. If aggravation of angina or increased myocardial ischemia, cardiac failure, or clinically significant arrhythmia develops during the treatment of hypothyroid patients, the dosage should be reduced or the drug discontinued.

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine). As with all thyroactive drugs, hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients.

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency. This condition may be enhanced in patients receiving thyroid analogues. These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease.

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones, it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation. During emergency surgery in euthyroid patients, and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy, the patients should be carefully observed.

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents. Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs. If sodium dextrothyroxine is later withdrawn from

patients who had required an increase of insulin (or oral hypoglycemic agents) dosage during its administration, the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state.

When either or both impaired liver or kidney function are present, the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results.

Usage in Women of Childbearing Age

Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug; it can be given to those patients exercising strict birth control procedures. Since pregnancy may occur despite the use of birth control procedures, administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother. Teratogenic studies in two animal species have resulted in no abnormalities in the offspring.

Precautions

It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein-bound-iodine levels. These increased serum PBI values are evidence of absorption and transport of the drug, and should NOT be interpreted as evidence of hypermetabolism; similarly, they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine). PBI values in the range of 10 to 25 mcg% in treated patients are common.

If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy, the drug should be discontinued.

A few children with familial hypercholesterolemia have been treated with CHOLOXIN for periods of one year or longer with no adverse effects on growth. However, it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol-lowering effect is observed.

Adverse Reactions

The side effects attributed to dextrothyroxine therapy are, for the most part, due to increased metabolism, and may be minimized by following the recommended dosage schedule. Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease; the incidence of adverse effects is increased in hypothyroid patients, and is highest in those patients with organic heart disease superimposed on the hypothyroid state.

In the absence of known organic heart disease, some cardiac changes may be precipitated during sodium dextrothyroxine therapy. In addition to angina pectoris, arrhythmia consisting of extrasystoles, ectopic beats, or supraventricular tachycardia, ECG evidence of ischemic myocardial changes and increase in heart size have been observed. Myocardial infarctions, both fatal and non-fatal, have occurred, but these are not unexpected in untreated patients in the age groups studied. It is not known whether any of these infarcts were drug related.

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia, nervousness, palpitations, tremors, loss of weight, lid lag, sweating, flushing, hyperthermia, hair loss, diuresis, and menstrual irregularities. Gas-

trointestinal complaints during therapy have included dyspepsia, nausea and vomiting, constipation, diarrhea, and decrease in appetite.

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease), hoarseness, tinnitus, dizziness, peripheral edema, malaise, tiredness, visual disturbances, psychic changes, paresthesia, muscle pain, and various bizarre subjective complaints. Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine by some investigators. Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient, although its relationship to CHOLOXIN therapy was not established.

In several instances, the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine); a worsening of peripheral vascular disease, sensorium, exophthalmos, and retinopathy have been reported.

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants, such as warfarin or Dicumarol, on prothrombin time, thus indicating a decrease in the dosage requirements of the anticoagulants. On the other hand, dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section).

Dosage and Administration

For adult euthyroid hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day. The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, if that dosage level is indicated to effect the desired lowering of serum cholesterol.

When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication, the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, preferably the lower dosage. The maximum in patients receiving digitalis therapy is 4 mg.

For pediatric hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0.1 mg (100 mcg) per kilogram. The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals. The recommended maximal dose is 4 mg daily, if that dosage is indicated to effect the desired lowering of serum cholesterol.

If new signs or symptoms of cardiac disease develop during the treatment period, the drug should be withdrawn.

How Supplied

CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1, 2, 4, and 6 mg tablets.

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THE NEBRASKA MEDICAL JOURNAL

TO REASON

Nothing stands to reason, not for long. For there are only two ways to know what to do, and one of them is the theoretical and the other is statistical. In the one, it is obviously foolish to step in front of a moving truck, but even this is not all theoretical, for we should never know that stepping in front of a truck that is bearing down on you is dangerous, unless someone had tried it.

The statistical method is not merely better, it is the only way. It is medicine's way and we call it counting cases. If we count enough cases, and if we count them all, we shall learn what has happened and what is likely to happen.

Doctors are rugged case-counters as well as individualists. And if we do not always write things down, we watch and we notice and we remember and we learn. We try new things and we give up old ways, and we count cases.

We are all statisticians, only doctors never stop counting.

— F.C.

LINES I LIKE

1. Never explain, never apologize.
2. You could look it up.
3. In Sua volutade e nostra pace.
In His will is our peace.
4. See the leaves fall.
5. Shut up, he explained.
6. I feel chilly and grown old.
7. I did what had to be done.
8. Habet et musca splenem.
Even a fly has its spleen.
9. We are such stuff as dreams are made on.
10. What the captain said to the first mate:
All I want out of you is silence, and damned little of that.

11. I do not recall that a gentleman ever consulted his watch in my presence before.

12. Never ask why.

—F.C.

TAKE CARDIAC ARREST OUT OF THE LIST OF DISEASES

The most incredible thing that organized medicine does today is to pretend that there is such a thing as cardiac arrest. Let me accomplish one more thing before I die, let me convince medicine that no such disease exists, and strike it from the list of diseases.

This has been used as a refuge for those who looked out of the window when they should have been watching the patient. Whereupon they said, quite solemnly, that something mysterious had somehow come into the room and had stopped a healthy heart without warning.

Hearts stop because of anoxia, hemorrhage, respiratory obstruction, and other illnesses and accidents and insults, all of which are well known and easily catalogued. There is no secret or preternatural agent that stops sound hearts without cause and without warning.

And everybody's heart stops when he dies.

What does it mean when we read that someone died of cancer of the lung *and* cardiac arrest; is not cancer of the lung enough? And another died (I am reading death notices as I write) of arteriosclerotic heart disease *and* cardiac arrest.

We are being silly when we write cardiac arrest. And worse still, we are dishonest.

—F.C.

HOW MANY

How many breaths will you draw during your lifetime, how many times will you sleep, how many heartbeats will you have; have you ever wondered? Well, I have figured these things out for you if you are a counter;

I am. I have assumed that you are a three-score-and-ten person.

Days to live	25 thousand
Breaths	750 million
Sicknesses, your own	50
Fractures, yours	2
Operations performed, if you are a surgeon	15 thousand
Hospitalizations, yours	10

Miles walked	125 thousand
Anesthetics given	75 thousand
Voiding	150 thousand
Sleeps and dinners	same as days
Other people's pains relieved	20 thousand
Lives saved	700
Good life	1

—F.C.

An Unusual Manifestation of Encephalitis

Abstract

A patient is described illustrating a syndrome characterized by encephalitis, truncal ataxia, bizarre eye movements (opsoclonus) and a benign clinical course. Neither the etiological agent(s) nor specific area(s) of CNS involvement are definitely known. Other disorders as are associated with opsoclonus are also described.

DURING a recent outbreak of encephalitis, one case was unique because of bizarre, chaotic eye movements which were associated with some truncal instability. The eye movements were best characterized as opsoclonus. This report is to describe this clinical feature, neuroanatomical considerations and to discuss its association with encephalitis and other medical disorders.

CASE REPORT

An 18 year old female gave a history of having had mild rhinorrhea, conjunctival irritation, and diarrhea three weeks prior to presenting to the emergency room. These problems lasted several days and she had then done well for one week until she noted an occipital headache. Two days prior to admission she had a fever and an intermittent chilling sensation. On the day of admission she noted that she was quite unsteady and that objects appeared to be "jumping around." This seemed to be worse when she was standing. She denied any diplopia, dysphagia, focal weakness, numbness, tinnitus, or other neurologic difficulties. There had been no recent ear infections.

Her past medical history was remarkable only in that she was noted to have had an enlarged thyroid at age 14 years and took thyroid medications for 1½ years. She denied any symptoms to suggest thyroid dysfunction. Her present medications included Ovril and occasional aspirins. Family history was noncontributory.

General examination revealed a blood pressure of 120/70 supine. Oral temperature was 38.6°C. Nuchal rigidity was present at 45°, and a positive Kernig's sign was noted.

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Thyroid was palpably enlarged, right lobe greater than left. Neurologic examination revealed almost continuous, erratic, conjugate eye movements, with eyes open or closed (noted by palpation and observation of closed eyelids). These occurred in a horizontal, vertical, and at times rotary fashion. They did not appear related to direction of gaze and were most prominent with initiation of eye movement. There was no overshoot of eye movement with changes in fixation. Sitting or standing the patient was very unstable and required assistance. She showed a mild dysmetria with finger-to-nose testing and had normal heel-to-shin testing. The rest of her neurologic examination was normal.

Admission hematocrit was 39%, hemoglobin 13.1 gm/dl and WBC of 9,600, with 78% neutrophils, 5% bands, 15% lymphocytes, 2% monocytes. Electrolytes were all normal as were BUN, glucose, creatinine, uric acid, alkaline phosphatase, LDH, SGOT, and SGPT. VDRL, ANA, thyroid antibody test and monospot tests were all negative. Twenty-four hour RAI thyroid uptake was normal; T₇ - 3.1, T₃ - 25%, and T₄ - 12.2 mcg/dl (upper limits of normal). Total serum protein was 6.9 gm%, and electrophoresis was normal. Urinalysis was normal. Blood cultures were all normal. Skull, chest, abdominal x-rays were all normal. EKG was normal. Brain scan and flow study with technetium 99m was normal. EEG except for frequent, intermittent eye movement artifact was normal.

Lumbar puncture the day after admission revealed an opening pressure of 125 mmH₂O. There were 22 WBCs, 67% neutrophils, and 33% mononuclear. Protein was 45 mgm%, glucose 69 mgm% (serum 120 mgm%). Gram stains, india ink preparation, and acid fast stains were negative. CSF protein electrophoresis was normal. Cultures of CSF for bacteria, fungi, and AFB were negative. Attempts at viral cultures of stool, throat washing, and CSF were negative. Acute and convalescent serum for complement fixation and hemagglutination inhibition titers failed to identify any etiologic agent.

The patient remained unchanged, and repeat lumbar puncture four days later showed an opening pressure of 170 mm H₂O, 327 WBCs, 13% neutrophils, and 87% mononuclears. Protein was 89 mg%, glucose 63 mg% (serum 136 mg%). Attempts at culturing an organism were again unsuccessful. She then began to improve gradually with a decrease in abnormal eye movements and less instability. She was discharged 10 days after admission, improved. Repeated lumbar puncture seven days after discharge, as an outpatient, showed an opening pressure of 125 mm H₂O, 68 WBCs, 25% neutrophils, and 75% mononuclears. Protein was 62 mg% and glucose 61 mg% (serum 110 mg%). She was significantly better with only slight truncal instability and difficulty with eye movements only when she tried to read.

Discussion

The term opsoclonus was first used in 1913 by Orzechowski to describe abnormal eye movements in six patients with encephalitis.¹ It is presently used to describe conjugate ocular movements which consist of bursts of horizontal, vertical and rarely rotary movements in a patient with eyes open or closed. They may occur spontaneously or with intentional movements of the eyes, usually at its initiation.² Terms used to describe this pattern of eye movements include bizarre, wild, chaotic, and dancing. Opsoclonus differs from nystagmus in being nonrhythmical and commonly present in positions other than extremes of gaze. It can also be distinguished from ocular dysmetria which is an overshoot of eye movement with changes of fixation from one object to another.³

The patient presented here fits the description of opsoclonus and is quite similar to ten previously described cases by Cogan.² His cases were characterized by prior upper respiratory infection followed by opsoclonus, severe body tremulousness, encephalitis and a relatively benign course over several weeks duration. Isolation of a virus in all previous cases, like ours have been unsuccessful.² During the recent outbreak of encephalitis some enteroviruses were isolated and rare arboviruses were incriminated because of elevation in antibody titers between acute and convalescent serum. We are unaware of opsoclonus having been noted in any of these patients. Several cases with opsoclonus in the literature have been described associated with an elevation in serum antibody titers to mumps, psittacosis⁴ and lymphocytic choriomeningitis.⁵

The area of involvement in the central nervous system responsible for the opsoclonus is not known. Because of the associated truncal ataxia, a midline cerebellar lesion is most frequently postulated.⁶ Disruption of the olivo-cerebello-rubro-tegmento-olivary equipotential reverberating circuit also known as the "Guillain-Mollaret triangle," has also been postulated.⁷ Whether this involvement is a direct manifestation of viral invasion or a consequence of immune dysfunction is uncertain at this time. The latter possibility is suggested by the presence of opsoclonus in patients with suspected disturbance of their immune mechanism.⁸ Opsoclonus has also been reported with systemic malignancies (carcinoma of the uterus and lung,⁹ adenocarcinoma of the breast⁷ and neuroblastoma in children¹⁰). This association prompted a recent publication⁷ to suggest a thorough systemic evaluation to rule out an occult neoplasm in any patient who presents with opsoclonus unaccompanied by any other clinical sign. The common etiologic factor, if indeed present, in all of these diverse conditions is not known. It would seem to be closely related with a disturbed immune state or the consequence thereof.

The association of abnormal bursts of ocular movements with truncal ataxia in the setting of CSF pleocytosis might be confusing unless the eye movements are

recognized as opsoclonus. If recognized as such, it would be most compatible with an encephalitis and obviate the immediate need for invasive diagnostic procedures to rule out a cerebellar abscess or other posterior fossa masses. Opsoclonus associated with an encephalitic picture does not connote a poor prognosis and in fact most cases reported have a relatively benign course.

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The Role of Radiation Therapy in the Management of Hodgkin's and Non-Hodgkin's Lymphomas

THIS general and basic presentation will deal with the role of megavoltage external irradiation in the treatment of Hodgkin's and non-Hodgkin's lymphoma. External irradiation in the management of malignant lymphoma has been used since the turn of the century when, only a few years after the discovery of x-rays, Pusey¹ in 1902 reported the first attempt to treat Hodgkin's disease and other lymphomas with the new x-rays. Nothing very exciting happened during the first two decades of the 20th century, when highly unreliable x-ray beams of low energy were available. In the 1920s kilovoltage irradiation became available, and remained the standard of treatment throughout the world for many years. In the early 1950s megavoltage irradiation, with beam energy of millions of electron volts, became available and ushered in a new era of radiotherapy. All subsequent references to external irradiation will be assumed to mean megavoltage irradiation whether cobalt, linear accelerator, or betatron.

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During the evolving years of radiotherapy, external irradiation, like many other techniques used in medicine, was based on an empirical foundation so that knowledge could be gained from individual treatment regimens. Treatment in the early days was literally a hit and miss type of affair. The father of modern radiotherapy is probably Gilbert² who stressed the importance of using extended fields of irradiation to treat Hodgkin's disease. Until that time the disease had been treated with narrow, local fields. Gilbert advocated wide-treatment principles from experience derived through clinical observations. The patients who were treated with localized portals to clinically apparent disease would often have persistent disease develop at the margin of the treatment portal. Relatively little was known

of the natural history of Hodgkin's and non-Hodgkin's lymphomas, so rational treatment plans could not be formulated. With the advent of megavoltage irradiation, adequate dosage could be delivered to deep seated lymphomatous nodes. As a result, there was renewed interest and aggressive approaches were undertaken in the evaluation and treatment of the lymphomas. The group at Stanford University was able to accumulate a large experience with Hodgkin's disease and has provided us with a wealth of information regarding the non-random spread of Hodgkin's disease, and the dosages required to control it.³ Complete staging procedures, with the benefit of lymphangiography and laparotomy, have allowed us to gain insight into the biologic behavior of the lymphomas and their patterns of spread. The treatment of Hodgkin's and non-Hodgkin's lymphomas is still evolving to the present time, but the basis of radiotherapeutic and chemotherapeutic treatment rests on a relatively firm foundation when compared to the treatment of other neoplasms.

In discussing the role of radiotherapy in the treatment of lymphomas, certain basic premises are to be stressed. 1. *The sensitivity of the tumor.* When mammalian cells are irradiated, cell death may occur, but may not be apparent clinically or microscopically until the cell in question undergoes division. At that time it will lose its reproductive integrity. Other types of cells, such as lymphocytes, undergo intermitotic deaths and are rapidly lysed.⁴ If a normal lymph node is irradiated, it will be depleted of lymphocytes within a short period of time. This is clinical proof of the extreme sensitivity of lymphocytic cells to radiation. Histiocytic cells, on the other hand, being derived from mesenchymal cells, are much more radioresistant and require higher doses of radiation for eradication. 2. *Sensitivity of the tumor volume.* Larger tumor masses require larger amounts of irradiation because of the hypoxic components of tumors which make up approximately one percent of the tumor mass,⁵ and of the numbers of cells involved. This situation is analogous to that found when treating patients with chemotherapy. Here a certain log number of cells will be killed with a certain dose of

chemotherapy which must be fractionated to bring the cell number to a low level. At this point the host's immunologic systems may be effective. These are some of the basic reasons which explain why, even though the individual cells being irradiated are sensitive to radiation, moderately large amounts of irradiation must be given to achieve tumor control and eradication. The cellular components in lymphomas are without a large shoulder on the cell survival curve, (that is, the cells are sensitive) and undergo intermitotic death. Yet doses in the range of 4,000 to 5,000 rads are required for tumor control at the 95 percent level.⁶ Years ago, when treatment was largely empirical, small doses of kilovoltage irradiation could be given, with rapid lysis of lymphomatous masses. However, very often there was a rapid recurrence of disease, with eventual dissemination. In conclusion, it is to be stressed that the lymphomas, (particularly Hodgkin's disease) are dose dependent for their control with external irradiation. The time over which radiation is delivered is of secondary importance, within limits of adequate dosage. 3. *Irradiation is a target-limited treatment modality.* Irradiation simply does not eradicate lymphomatous disease unless it strikes the disease. Part of the large success attained in treating Hodgkin's disease with external irradiation is the direct result of Hodgkin's disease being a nonrandomly spreading process.⁷ Some may disagree⁸ with this concept but it is generally accepted in this country. On the other hand, with non-Hodgkin's lymphomas from one end of the spectrum, with well differentiated, nodular lymphoma, to the other with poorly differentiated, diffuse mixed or histiocytic lymphoma, the disease process becomes progressively less well controlled with aggressive behavior and dissemination. The high incidence of early bone marrow involvement⁹ by non-Hodgkin's lymphomas has led some to take a pessimistic view regarding their successful treatment with irradiation. However, if a patient is young and has a well differentiated, nodular lymphoma, the disease may act in an orderly fashion with nonrandom spreading and may remain controlled for years. After many years the lymphoma may become more anaplastic and

aggressive. Therefore, I feel that these patients should be managed with optimism and be thoroughly evaluated with the diagnostic modalities which are available including exploratory laparotomy to delineate the extent of their disease.

It is generally accepted that the early stages of Hodgkin's disease are effectively treated primarily with external irradiation. Stages IA through IIIA may be managed entirely with megavoltage external irradiation. However, those patients with "B symptoms," including night sweats, fever, and ten percent weight loss during the previous six months prior to diagnosis have a worse outlook and may be harboring disseminated disease. Therefore, these patients may be treated with a combination of external irradiation and chemotherapy. There are different viewpoints regarding the sequence and methods of this type of management but this must be individualized. For lymphocyte predominant disease and nodular sclerosis, so called total nodal irradiation may not be required if the disease presents above the diaphragm and the patient has had a thorough negative evaluation, including laparotomy. So called incomplete nodal irradiation may be given, which consists of a mantle and a periaortic strip extending down to the bifurcation of the aorta. However, with disease types such as mixed cellularity and lymphocyte depletion types of Hodgkin's disease, which tend to have a random pattern of spread and a poor prognosis, total-nodal irradiation is recommended. For the advanced stages of disease such as IIIB, IVA and IVB some combination of chemotherapy and external irradiation is probably the best form of treatment. For example, stage IIIB Hodgkin's disease can be treated using three cycles of COPP followed by total nodal irradiation followed by three cycles of COPP. For stages IVA and IVB external irradiation would act as an adjunct to chemotherapy to enhance the cell killing capability of chemotherapy. It is recommended that the patient be staged prior to treatment so that areas of gross nodal involvement can be mapped out. After initial courses of chemotherapy the areas of gross disease should be irradiated with moderate doses in the range of 2,000 to 2,500 rads. This may be

then followed by chemotherapy. The rationale behind using external irradiation in the management of advanced stage Hodgkin's disease is that the areas of recurrence are in the areas of original gross disease in those treated only with chemotherapy.¹⁰

It must be stressed that the patients with the extranodal sites of involvement which are contiguous to nodal areas have the same prognosis as those with strictly nodal disease provided they are treated adequately.¹¹ As reported at the Ann Arbor Conference in 1971, the E classification no longer places the patient in a stage IV disease category.¹² These patients should be treated according to the stage in which they would be classified without the contiguous extra nodal involvement.

In certain selected patients with favorable types of non-Hodgkin's lymphomas, curative external irradiation may be undertaken after a thorough extensive evaluation. These patients include those with nodular, well differentiated lymphoma without visceral or bone marrow involvement. Doses of irradiation required to eradicate non-Hodgkin's lymphomas are in the range of 4,000 rads. However, for the remaining unfavorable types of non-Hodgkin's lymphomas chemotherapy is probably the primary form of treatment with external irradiation acting as an adjunct. Radiation though palliative, plays a very significant role in treatment of these non-Hodgkin's lymphomas. In particular it is recommended that large lymphomatous masses located in critical areas be irradiated in conjunction with chemotherapy. For instance, mediastinal masses causing superior vena cava syndrome, and lytic bone lesions in critical areas, such as the femoral neck. Also spinal cord compression and painful abdominal masses may be irradiated with rapid regression of tumor.

Summary

The treatment of Hodgkin's disease in its early stages, is best managed with megavoltage external irradiation, and in its later stages by combinations of external irradiation and combination chemotherapy. The role of radiation therapy in the treatment of non-Hodgkin's lymphomas is primarily limited to curative treatment of

certain well differentiated nodular lymphomas. The major, long-standing role of irradiation in managing this disease lies in its consistent dependability to provide patients with relief in situations ranging the entire spectrum involved in palliative treatment.

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Abstracts of Manuscripts to be presented at the Regional Meeting of the American College of Physicians, Omaha, Nebraska, March 5, 1977

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THE PREVALENCE OF ABNORMAL GLUCOSE TOLERANCES AND RELATED OPHTHALMOLOGIC COMPLICATIONS IN AMERICAN OMAHA INDIANS. Fred Lovrien, M.D. (Associate), J. C. Shipp, F.A.C.P., Jack L. Smith, Ph.D., University of Nebraska, College of Medicine, Omaha, Nebraska.

Since approximately 1940 there has been much interest in the apparent frequency of abnormal glucose tolerances in American Indians. No systematic evaluation of the Omaha Tribe has to date been done. This prospective study evaluates the prevalence rate of abnormal glucose tolerances and the prevalence rates of associated cataracts and retinopathy. Fasting and 2 hour post glucose load plasma glucose specimens were obtained. Direct ophthalmologic exam was done on all by one observer. On return visits, if abnormal glucose tolerance was known, pupils were dilated prior to exam. Of a total Indian population on the Omaha Reservation, 34% of those over 30 years of age were screened under standard conditions. Of this population screened, 50% had an abnormal glucose tolerance as defined by a fasting plasma glucose ≥ 135 mg% or a 2 hour post glucose load plasma glucose of ≥ 165 mg%. Of the diabetic population, 56% had some history of previous glucose intolerance. However, 30% with no history of glucose intolerance had glucose tolerances diagnostic of diabetes mellitus. Cataracts were present in 10% of the nondiabetic population and 18% of those with an abnormal glucose tolerance. Diabetic retinopathy was defined as microaneurysms, hemorrhages or exudates without demonstrable cause other than diabetes mellitus. This was present in 16% of those with an abnormal glucose tolerance. Retinopathy was found in only 1% of those with a normal glucose tolerance. The prevalence of diabetic glucose tolerances in Omaha Indians is among the highest reported. Possibly associated ophthalmologic complications are frequent.

PERITONEOSCOPY FOR THE DIAGNOSIS OF PREDOMINATELY LEFT LOBE LESIONS OF THE LIVER. Frederick F. Whitcomb, M.D., and S. Peter Gibb, M.D., Lahey Clinic Foundation, Boston, Massachusetts.

It is well established that a single random liver biopsy will detect tumor in only 40 to 49% of patients with hepatic neoplasia. This yield can be increased to about 75% by using peritoneoscopy and a direct vision liver biopsy or by using a combination of scan guidance, cytology, and a second percutaneous liver biopsy. In the present study, 38 patients were selected with focal lesions by liver scan which were predominantly located in the left lobe of the liver or in the left portion of the right lobe. Standard percutaneous liver biopsies using the right lateral approach were carried out prior to peritoneoscopy in all patients and were normal. Peritoneoscopy under local anesthesia with direct vision liver biopsy, when appropriate, yielded the diagnosis in 36 patients. In 2 patients the procedure was unsuccessful because of technical problems, 30 patients had metastatic liver disease, 2 had lymphomas, 1 had polycystic disease, 1 had postnecrotic cirrhosis, and 2 had normal thin left lobes of the liver. Complications consisted on one 2-unit bleed and a localized bowel perforation neither of which required surgical intervention. It is concluded that peritoneoscopy is a safe, simple, and effective method for establishing the diagnosis of focal lesion predominantly involving the left lobe of the liver and is indicated if the diagnosis cannot be established by two percutaneous liver biopsies, cytology and scan guidance.

THE PREDICTIVE VALUE OF CLINICAL PATHOLOGY TESTS IN CASE FINDING, SCREENING, AND DIAGNOSIS. Jerald R. Schenken, M.D., The Pathology Center, Omaha, NE.

The volume of testing in the Clinical Pathology laboratory is increasing at a rate of 10-20%/yr. The clinicians requesting the tests are often not clear whether these studies are to be used for screening, case finding, diagnosis, or some combination. In addition, the sensitivity and specificity of the tests used are generally not clearly established and vary greatly with the laboratory method used and the "normal range" established. The concept of "Predictive Value" has been introduced to attempt to quantify the value of these tests which has been appreciated and understood by astute clinicians in general terms for many years. Examples will be chosen from the literature as well as the author's laboratory to demonstrate the principle, its advantages, and short comings.

ABNORMAL P50O₂, 2, 3, DPG AND CARBON MONOXIDE LEVELS IN STRESS POLYCYTHEMIA. J. R. Feagler, R. S. Eliat and J. M. Salhany, Dept of Med., Div. of Hemat. and Cardio., Univ. of Nebr. Med. Ctr., Omaha, Nebraska.

The position and shape of the O₂ disassociation curve may be altered by changes in pH, ionic strength temperature, 2, 3 DPG, heme to protein attachment, ligand attached to iron, and the valency of iron. We have measured O₂ disassociation curves, 2, 3 DPG levels and CO levels in 6 patients with typical stress polycythemia. Whole blood O₂ disassociation curves were measured with a radiometer providing a disassociation curve analysis. 2, 3 DPG levels were measured spectrophotometrically. CO levels were determined by a differential spectral absorption technique using a coximometer, with normal values being 0-4%. Hemoglobin electrophoreses on all patients was within normal limits. Mean values for the following were calculated:

	P50	DPG	Lact	PH	PO ₂	pCO ₂	Hct	Hgb
x	24.8	4.87	0.675	7.389	82.9	39.8	52.0	17.3
SEM	0.61	0.73	0.113	0.03	6.72	3.7	2.73	0.38
Normal	26.8	4.50	0.75	7.4	95	40	44.5	15.0
SEM	0.8	0.50	0.25	0.5			2.5	1.0

All patients had elevated CO levels ranging from 5.1% to 13.9%, with a mean of $9.3 \pm 1.39\%$. The etiology of the elevated carbon monoxide level was not clear. The ligand attachment of carbon monoxide to iron appears to have resulted in an impaired ability to release oxygen with a left shift in the P50O₂, that could not be compensated for by elevation in RBC 2,3 DPG. The mechanism of volume contraction remains unexplained, however, 3 out of 6 patients had elevated plasma catecholamine levels.

THE SAFETY AND ACCURACY OF NURSE SUPERVISED EXERCISE TESTING. M. H. Sketch, S. Mahiuddin, V. Runco, J. Lynch, S. Sargent, Creighton University, Omaha, Nebraska.

Exercise testing now provides a safe, noninvasive, and highly specific method of evaluating ischemic heart disease. The number of tests performed is increasing daily. Manpower to supervise these tests is limited. Nurse practitioners have not been permitted to perform this task. One reason is questionable safety. Two hundred and six consecutive treadmill exercise tests performed in a general hospital were supervised randomly by a nurse (Group A-100 patients) and doctors (Group B-106 patients). Testing was performed by the method of Bruce. Most tests were performed for evaluation of chest pain (Group A 76, Group B 59). The incidences of the other reasons for testing did not statistically significantly differ between groups. Cardiac drugs taken by patients did not differ between groups A & B ($P > 0.05$) i.e. duration — 7.6 & 7.9 min. respectively. Heart rate achieved 153 & 152/min. respectively. The number of "positive" tests (Group A 21 & Group B 26) and exercise induced PVC's (Group A 3 & Group B 8) were similar ($P > 0.05$). No patient suffered any morbidity myocardial infarction, or death.

Conclusion: It is safe and accurate for appropriately trained nurses to supervise exercise tests.

PACING VECTORCARDIOGRAPHY: DIAGNOSIS OF MYOCARDIAL INFARCTION DESPITE CONCOMITANT VENTRICULAR PRE-EXCITATION Chris C. Caudill, M.D. (Member), and Charles S. Wilson, M.D. (Fellow), Bryan Memorial Hospital, Lincoln, Nebraska.

Difficulty often exists in making the diagnosis of myocardial infarction in the presence of Wolff-Parkinson-White electrocardiographic abnormality. Although normalization of the QRS complex is far superior to ST or T changes which are unpredictable and unreliable, noninvasive means of accomplishing this are not infrequently unsuccessful. This study documents an invasive technique utilizing principles of His electrography and of the pre-excitation phenomenon, in conjunction with pacing and single beat vectorcardiography. By positioning the pacing electrode through observation of His bundle deflections, stimulation of the junctional area results in normalization of the QRS complex by initiation of the impulse away from the site of the bypass tract. Vectorcardiographic recording eliminates the phenomenon of "pseudanormalization" and allows examination for evidence of transmural myocardial injury. This technique was successfully utilized in the patient presented with no attendant morbidity and offers an effective method of evaluating this complicated problem.

THYMOMA — DIAGNOSTIC AND THERAPEUTIC CONSIDERATIONS. G. Gibbs, M.D., H. Hartman, M.D., D. B. Stone, M.D., F.A.C.P., M. A. Kessinger, M.D., F.A.C.P., H. M. Leman, M.D., F.A.C.P. and J. F. Foley M.D., F.A.C.P., Univ. of Nebraska Med. Center, Omaha, Nebraska.

Thymomas comprise 9% of all primary mediastinal tumors, but can be readily overlooked without mediastinal tamography or exploration. Five malignant and 1 benign thymoma have been observed in the past year in 2 females and 4 males aged 21-60. All required mediastinotomy or thoracotomy for diagnosis, which was suspected pre-op in 1 case of benign thymoma because of myasthenia, in 2 cases because of dyspnea and a mediastinal mass, and 1 case was discovered on a routine chest x-ray. In 1 patient the initial problem was control of ectopic ACTH production finally achieved by total bilateral adrenalectomy. In a second case, hypercalcemia developed 8 years prior to discovery of the thymoma, and was unsuccessfully treated by repeated parathyroidectomy. Serum PTH was elevated pre-op (320 units) and normal after a palliative excision of a 760 gm. invasive epithelial thymoma. Hypercalcemia persisted in this possible first reported case of hypercalcemia in malignant thymoma, a frequent association would seem likely because both the thymus and the parathyroids originate in the same 3rd and 4th bronchial clefts. All 5 malignant thymomas received 4,400-6,000 rads to the mediastinum, with 7-year asymptomatic survival in 1, but with pericardial recurrences subsequently in 2 requiring surgery for relief of tamponade. The association of thymomas with myasthenia gravis, Cushing's syndrome, autoimmune diseases (systemic lupus, rheumatoid arthritis, acquired hypagammaglobulinemia, polymyositis and myocarditis, pemphigus, mono-clonal gammopathy, and red cell oplosia) and with frequent second primary malignant neoplasms will be reviewed, as well as results of chemotherapy.

DIFFERENCES IN HAND WARMING ABILITY IN MIGRAINE VS. NON-MIGRAINE SUBJECTS. Will C. Marriott, B.A., M.A. and Vernon G. Ward, M.D., F.A.C.P.

Behavior therapy combining relaxation and Bio-Feed-Back to teach voluntary control of hand temperature has repeatedly been shown to alleviate migraine headaches. Studies investigating the most effective means to teach this control often employ non-migraine subjects expecting to extend the results to the migraine population. However, it has not been known whether migraine subjects respond equally to the same treatment procedures that are effective for migraine subjects. It was hypothesized that because of possible autonomic instability underlying migraine, a group of non-migraine subjects would show greater increases in hand temperature than a migraine group. Six subjects with chronic classical migraine and an incidental sample of six non-migraine subjects were given a five day training program consisting of autogenic feedback. Subjects also practiced at home four evenings with a portable temperature trainer while listening to a cassette tape on relaxation and handwarming. At the end of five days, an analysis of variance and *t* tests revealed that the non-migraine group achieved significantly greater learning of hand temperature in all comparisons made. Results indicate that future investigation of hand-warming techniques should be done with the realization that methods developed for handwarming may not be applicable to the migraine population.

CLINICAL AND LABORATORY CORRELATES OF THE STAPHYLOCOCCAL CLUMPING TEST: A FIVE YEAR ANALYSIS. Richard B. Davis, M.D., Ph.D., F.A.C.P., Genevieve Holtz, B.S. and Susan Willrodt, M.T., A.S.C.P., Departments of Internal Medicine and Pathology, University of Nebraska Medical Center, Omaha, Nebraska.

To evaluate the significance of fibrinogen — fibrin degradation products (FDP) all staphylococcal clumping tests conducted during a 5-year period were analyzed. Four hundred eighty-nine determinations were performed on 281 patients, and correlated with the clinical course of the patient and other coagulation tests when available. The range of FDP was 0 to 4915 $\mu\text{g/ml}$ with a median of 104 $\mu\text{g/ml}$. One hundred thirty-nine determinations in 100 patients were normal (6 $\mu\text{g/ml}$). FDP were ordered as a single test in 81 patients, and were elevated in 73%. Normal FDP were associated with intravascular coagulation (DIC) in only one patient, however 91% of patients with elevated FDP did not have clinical DIC; of these 56 patients were discharged and 36 patients died. Elevated FDP were observed with normal paracoagulation tests and normal FDP with positive paracoagulation tests. Increased FDP were observed with normal thrombin times. It is concluded the FDP levels often are elevated in the absence of DIC in hospitalized patients, and that only by appropriate testing in depth can the significance of elevated FDP be evaluated.

SEX HORMONES OR CALCIUM SUPPLEMENTS DIMINISH POST-MENOPAUSAL BONE LOSS. R. R. Recker, P. D. Saville, and R. P. Heaney. Department of Medicine, Creighton University School of Medicine, Omaha, Nebraska.

Estrogen deficiency is probably important in postmenopausal bone loss but the role of Ca intake is less certain. We have investigated the effects of sex hormone replacement and of diet Ca supplements on bone loss in 60 postmenopausal women (56.9 ± 4.6 years) who were divided into 3 groups: 20 controls, 18 treated with conjugated estrogens (.625 mg) combined with methyl testosterone(5mg), and 22 treated with CaCO_3 (2.6gm day). Cortical thickness of the 2nd, 3rd, & 4th metacarpals by radiogrammetry (MCT) and bone density of the distal radius by photon absorptiometry (PA) were measured at 6 month intervals for a total of 2 years. Mass and thickness data were fitted as linear functions of time, and mean rates of change computed. Total skeletal remodeling by Ca-tracer kinetics was evaluated in each group. In the controls bone mass decreased at 1.18%/yr. by MCT ($P < .01$), and at 2.86% yr. ($P < .01$) by PA. With hormone treatment average MCT loss fell to 0.15%/yr and PA loss to 0.73% yr., neither rate differed significantly from zero. For Ca, mean MCT loss fell to 0.22%/yr. (NS) and PA loss to 2.11% yr. Both treatment groups differed significantly from controls ($P < .05$) for MCT, but not for PA. Kinetic studies showed that bone accretion (A) and resorption (R) were decreased by both treatments and that R fell more than A. We conclude 1) that these techniques are sufficiently sensitive to detect age-related bone loss within a 2-year period of observation; 2) post-menopausal sex hormone replacement measurably decreases bone loss with aging; 3) it does so by suppressing bone turnover, resorption more so than accretion; and 4) Ca supplements produce the same effect, but at the dose employed were slightly less effective than hormone therapy.

EVIDENCE THAT ACETALDEHYDE ALTERS HUMAN ERYTHROCYTE MEMBRANE PROTEINS AND HEMOGLOBIN. K. C. Gaines, M.D., (Associate), J. M. Salhony, Ph.D., D. J. Tuma, Ph.D., and M. F. Sorrell, F.A.C.P., University of Nebraska College of Medicine and V.A. Hospital, Omaha, NE.

Chronic alcoholics are known to exhibit alterations in red cell morphology and deformability. The purpose of this study was to see if acetaldehyde, the immediate oxidative product of ethanol metabolism, could cross-link certain erythrocyte membrane proteins and possibly account for some of the physical changes seen in the erythrocytes of chronic alcoholics. Addition of acetaldehyde (0.1-5mM) to hemoglobin-free ghosts, followed by polyacrylamide gel electrophoresis (PAGE) in sodium dodecyl sulfate (SDS), caused bands 1, 2 (spectrin), and 5 (actin) to diminish in intensity and new, high molecular weight bands (HMWB) to appear. Spectrin-actin depleted ghosts reacted under the same conditions showed only faint banding in the HMWB region, while isolated spectrin and actin showed intense HMWB formation. Addition of ^{14}C labeled acetaldehyde showed a large portion of the specific activity in the region of the new HMWB. When unlabeled and ^{14}C acetaldehyde were added to intact erythrocytes, high specific activity was observed in the region of the new HMWB. In addition, we observed cross-linking of hemoglobin apparently yielding dimeric and tetrameric forms of SDS-PAGE. Distinct changes in red cell morphology reproducing those seen in chronic alcoholics as well as an increase in osmotic fragility were also observed. We conclude that acetaldehyde addition does cause cross-linking of certain erythrocyte membrane proteins and hemoglobin which correlates with characteristic physical changes in the cell. These results may offer a possible molecular basis for part of the hematologic disorder associated with chronic alcoholism.

Chemotherapy in Review *

PART II

5. Urologic Malignancies:

For disseminated renal carcinoma hormonal therapy including progesterone (17%) and androgens is superior to chemotherapy.¹⁴

Chemotherapy for bladder carcinoma has been notoriously ineffective in the past. Recently, adriamycin produced a 31% response rate in a single series.¹⁵

Stilbesterol in a dose of 1 mg daily (5 mg daily is associated with an increased number of vascular deaths)¹⁶ and orchiectomy are still the primary treatment modalities for prostatic carcinoma. Various chemotherapeutic regimens using 5-FU, cyclophosphamide, and adriamycin are currently being evaluated.¹⁵ For carcinoma of the penis, Bleomycin is the agent of choice.

Aggressive chemotherapy for carcinoma of the testis has improved the response rates in recent years, although considerable toxicity is usually encountered. Antinomycin-D alone or in combination¹⁷ (60%) has been the most widely used agent. Recently, a combination of vinblastine and bleomycin has produced a 75% response rate.¹⁸ Mithramycin has been useful for embryonal cell carcinoma. It is also the most potent agent for treatment of severe hypercalcemia. For seminomas the alkylating agents such as chlorambucil have been used successfully.

6. G.I. Malignancies:

For upper G.I. tract carcinoma, including primaries of the esophagus, stomach, pancreas and biliary tract, 5-FU (10-25%) is still the most effective drug although back-up agents such as BCNU, methyl-CCNU and Mitomycin-C are available. Combination programs utilizing these drugs have produced higher response rates at the expense of greater toxicity.¹⁹ For colon carcinoma the same agents are effective (5-FU 20%). Some advantage has been demonstrated with the combination of 5-FU, methyl-CCNU and vincristine (42%). 5-FU used prophylactically in high risk patients may prolong survival, but this is debatable at the present time.²⁰

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The best route for administering 5-FU is currently being evaluated. The response rates in most series are somewhat higher for the intravenous route as opposed to oral administration, but prolongation of survival has not been demonstrated.²¹ This author favors using 5-FU intravenously at the present time. Intra-hepatic 5-FU has been useful for patients with massive liver disease with little or no disease elsewhere. The common hepatic artery is catheterized either via the brachial or femoral routes, or by direct surgical implantation; 60% response rates have been obtained.²²

7. Miscellaneous Solid Tumors:

The treatment for melanoma is improving. Imidazole carboxamide (20-25%) is the drug of choice. There have been reports of a combination of vincristine, BCNU and Imidazole carboxamide producing up to 62% response rates,²³ but cooperative studies comparing single and multiple drug programs have demonstrated little difference. BCG has been shown to delay recurrence in high risk patients with micro-metastatic disease.²⁴ Intra-arterial therapy with Alkeran administered at high temperature may prolong survival in selected patients with extremity lesions.²⁵ Recently, impressive gains have been made in the treatment of sarcomas. This category includes the non-lymphosarcomas such as rhabdomyosarcoma, osteogenic sarcoma, fibrosarcoma, etc. The combination of adriamycin, imidazole carboxamide, cyclophosphamide, and vincristine has produced a 55% response rate.²⁶ For brain tumors, the nitrosoureas (BCNU and CCNU) have been shown to be effective. The combination of BCNU and 6000 roentgens produced a 40% response rate and

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30% one year survival.²⁷ For carcinoid tumors, 5-FU, cyclophosphamide, and streptozotocin have been used successfully. The latter is also the drug of choice for metastatic islet cell carcinomas of the pancreas.²⁸

8. Hematologic Malignancies:

Much greater inroads have been made in the treatment of hematologic malignancies, especially for acute lymphocytic leukemia (ALL) and Hodgkin's disease. An aggressive program for ALL originating from Saint Jude Hospital in Memphis consists of three phases.²⁹ Multiple drugs are used to induce a remission followed by a central nervous system treatment phase which utilizes radiation and/or intrathecal Methotrexate. The third phase consists of a long term multiple drug maintenance program. A miraculous 50% five year and 25% ten year survival has resulted for this formerly 100% lethal disease.

The treatment for acute granulocytic leukemia, a disease primarily of adults, has been much less successful. Cytosine arabinoside, daunomycin and rubidazole are the most effective agents. Other useful drugs include 6-Thioquanine, vincristine and prednisone. Although the response rates may exceed 50%, for the most part they are of short duration.³⁰

The drug of choice for chronic lymphatic leukemia is Chlorambucil, which is often combined with steroids. Myleran is the most effective drug for chronic granulocytic leukemia.

The most exciting advances have been made in the treatment of Hodgkin's disease. The response rates are excellent even for patients with far advanced disease. Chemotherapy is the primary modality for Stage III-B (symptomatic disease above and below the diaphragm confined to the lymphatics) and Stage IV disease (extranodal disease such as liver involvement) with radiation therapy being used as an adjunct.³¹ For the earlier stages there are on-going programs comparing radiation therapy alone versus radiation combined with chemotherapy.³² The results to date reveal an increased disease free interval for the latter, but no

increase in survival. The MOPP (i.e. nitrogen mustard, Oncovin, Prednisone and procarbazine) programs produce remissions in the range of 80%. A 40% five year survival has been attained even in Stage IV disease. The treatment for non-Hodgkin's lymphoma is less effective although there is increasing evidence that many patients with histiocytic lymphoma are potentially curable with aggressive treatment at the onset. Various combinations have been used in attempt to accomplish this (i.e. MOPP³³ and BCOP,³⁴ BCNU, cyclophosphamide, vincristine, and prednisone).

The treatment for multiple myeloma is becoming more aggressive. Combination programs are producing up to 90% remissions.³⁵ Cytoxan and Alkeran are equally effective as the drugs of choice with Prednisone, BCNU, vincristine and adriamycin showing activity. Chlorambucil is still the drug of choice for macroglobulinemia but combinations appear promising. For polycythemia vera, cyclophosphamide, chlorambucil and Myleran have all been used successfully to treat patients requiring frequent phlebotomies.

V. Future of Cancer Chemotherapy:

It is most important that the surgeon, radiotherapist, chemotherapist, immunotherapist, pathologist, and primary physician work together in managing the patient. The future of chemotherapy depends in large part on this type of teamwork. As new advances are made in all of these fields, the total effort will improve the patient's chances for prolonged survival and potential cure.

In summary, chemotherapy has a place in the treatment of almost every type of malignancy and virtually all patients with malignancies should have an opportunity to be evaluated for this form of treatment.

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Down Memory Lane

1. In driving automobiles, we are all proud to have the caduceus on our wheel, because the cop looks after us as we speed, with a sort of, "Well, you know Doc," and lets us go.

2. Shall the medical profession do collective advertising?

3. The Nebraska State Medical Association finished the year 1926 with 1,218 members which is 10 more than for the year 1925.

4. A Bill fostered by the Legislative Committee of the Nebraska State Medical Association, embodying the best thought of educators and welfare workers throughout the country, demanding education in the sciences fundamental to Medicine as a preliminary requirement for licensure to practice the healing art by any method, is before the Legislature for action with better prospects of passing both Houses than any welfare legislation that has been brought up for consideration for many years.

5. One who has had angina pectoris should always carry nitroglycerin.

6. Meningococcic meningitis is primarily a bacteremia but with electivity for the brain and spinal cord. The cisterna magna is the most favorable point of attack where the injection of serum near the site of disease is possible.

7. In an anemic man of 45 years of age we must consider infection, cancer, pernicious anemia, nephritis, leukemia and hemorrhoids. Under infection comes lues, regardless of a negative Wassermann.

8. Among the newer lines in medical thought is that of periodic health examinations. Every layman and physician, who has given this subject any consideration, has asked himself whether it is a fad or whether it has come to stay.

9. The treatment of acute coronary thrombosis is morphine, morphine, and morphine until you get results.

10. The Platte Valley Hospital, North Platte, has been moved into the Wesleyan University Building.

Nebraska State Medical Journal
February, 1927

PRESIDENT'S PAGE

THE NEBRASKA HEALTH MANPOWER PLAN

Have you read this document? Are you aware of its existence? Do you know what it is?

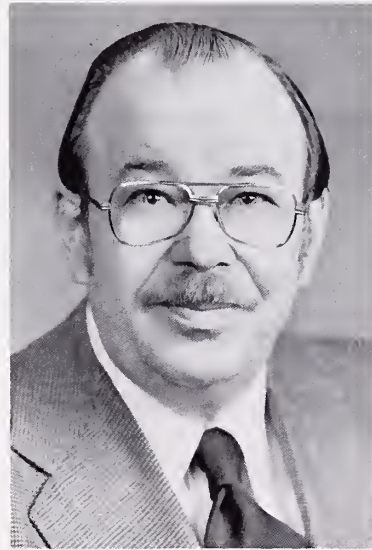
The Nebraska Health Manpower Plan was formulated during 1976 by the State Comprehensive Health Planning Agency, a Bureau of the State Department of Health. A State Health Manpower Planning Committee provided guidance and advice in preparing the document. Such was funded by the Department of Health, Education and Welfare.

The plan professes to be "A Strategy for Alleviating Health Manpower Needs in High Priority Areas in Nebraska" and professes to supply "An Analysis of Manpower Requirements for Physicians, Dentists, Pharmacists, Podiatrists, Optometrists, and Veterinarians." In addition, the "need" for additional nurses, physician's assistants, chiropractors, psychologists, social workers, nutritionists, dietitians, and other health related workers is covered in the plan.

The study is confined to Nebraska without consideration to referral patterns across the state line. It further is divided to express the "needs" within each of the six Area Comprehensive Health Planning Agencies without particular regard to services provided from other areas within Nebraska.

What type of statements would you anticipate in such a report? Approximately 12 primary care physicians are needed in the counties of Cedar, Dixon, Burt, Cuming, Colfax, Platte, and Boone with a total of 30 primary care physicians needed in the Northern Nebraska Planning Agency area. The same area is in need of 5.01 ophthalmologists, 2.25 dermatologists, and 1.99 cardiologists. An additional 38 anesthesiologists, 30 radiologists, and 16 pathologists are needed in Nebraska to obviate the "shortage" of these specialists in various areas of the state.

None of the Nebraska counties currently



need pharmacists; but, with the changing practice of the pharmacist to include "patient counseling, monitoring of health status, and community health education," there may be some shortage of community-based pharmacists. There is need for 21 additional podiatrists in Nebraska. Although 35 practicing optometrists are needed in various areas of the state, none are needed in Lancaster County since the area has a surplus of ophthalmologists who devoted 80% of their practice to optometry. Since the U.S. Chiropractic Comprehensive Health Planning Office recommends one chiropractor per 20,000 population, the Midlands is in need of 11, and Southeast Nebraska is in need of 4 additional chiropractors.

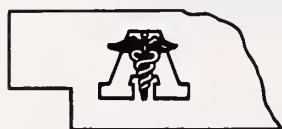
Do these statements give you an idea of what is going on in health planning? Who is slated to provide medical care to Nebraska citizens? Where does the physician actually fit into such schemes? In my opinion, this type of document is purely political. The political and lobbying activities of health related providers is bearing fruit through legislation that gives them status and recognition.

And what happened to quality medical

care? Unless the physician is recognized as being the apex of the pyramid in maintaining primary responsibility for patient care, quality medical care descends to mediocrity or to lower levels. The role of the nurse, physiotherapist, laboratory technologist, anesthesiologist, and others in providing patient care at the direction of and under the supervision of a physician is recognized in providing necessary and quality care. The role of such agents as the chiropractor to provide primary services in the health field — a service that some have defined as quackery — cannot be condoned by the medical profession and has no place in health planning for the citizen of this state.

Physicians have become active in the political arena. Many, however, abhor this concept. However, society today demands that the physician remain active in politics in order to safeguard patient welfare and quality medical care — the type of medical practice that you are striving to provide. We must unite in these efforts to have our political voice heard. With a unified effort by physicians, our effort in planning for the provision of quality medical care for the next generation through *proper* health planning can be accomplished.

Harlan L. Papenfuss, M.D.
President



The Auxiliary

The following are two more reports from the seminars held at the Chicago Confluence in October. Now is the time to lay the groundwork for the next election.

HOW TO BE POLITICALLY EFFECTIVE — Julie Hertzler and Rosemary Northwall

Mr. Paul M. Newman, President of the Paul M. Newman Company and manager of political campaigns, outlined practical ways individuals, particularly women, who constitute the majority of volunteers, can be most effective in the political arena. For greater impact the beginner should concentrate her efforts in behalf of a specific individual's campaign.

Because they are usually small in number, Mr. Newman suggested auxiliaries stay in local campaigns. Some candidates are there by inertia, put in office by a winning ticket, and are the easiest to defeat.

There are four campaign resources available to women to use: money, manpower, skills and time. Organizing and implementing these resources is eighty per cent of any campaign.

Small donations of money given by individuals but presented altogether may amount to a sizeable sum. Similarly, when a number of people in a group are each willing to devote a few hours per week, the total effect may be significant. Both assets are a means of influence. With money and manpower, you may even be a candidate.

Using your skills may enable you to be a campaign manager. There are twenty women so employed at this time. Both parties have campaign management seminars. Be a manager of campaign headquarters. If your candidate is elected, he may ask you to be on his staff. You might be a precinct co-ordinator, statistical researcher, or supervisor of a telephone bank.

According to Mr. Newman, the most successful campaigns he manages are run on the premise of the five Ws — When Women Work We Win.

MAP, PC, and SKIP — Rosemary Northwall
Know your international health agency

alphabet. MAP International (formerly known as Medical Assistance Programs) works with existing Christian mission organizations and national churches in a ministry to the whole man, physical and spiritual, through programs of medical assistance, emergency relief, international development and short-term overseas personnel. Physicians are needed for short periods to relieve their colleagues in Third World countries for vacations or additional sleep. The MAP-Reader's Digest International Fellowship program has been established for the purpose of providing final year medical students, interns and residents with a carefully planned and well supervised clinical experience in a relatively primitive setting. MAP tries to stockpile blankets and tents for immediate response to natural disasters and will accept hospital or physician's equipment and tools which are inventoried and shipped from warehouse facilities in various parts of the world to those needy requesting such items. Money is always needed. However, due to the fact that the majority of commodities are donated, a one dollar contribution can send over 30 times its value in material aid overseas.

Project Concern believes that health can be insured by providing people with tools, ability and education to care for themselves. To effect the delivery of health care where they need it the most, when they need it the most, thirty different facilities have been established around the world including two in the US, Mexico, Guatemala, Asia, Hong Kong, Ethiopia, and others. Through their nonprofit placement service called OPTION, health care professionals are directed into areas of need, from a small town in Kansas to Ethiopia. New medical school graduates or those now retired might be especially interested in this endeavor. Wives are needed as teachers, nurses and in other special interest areas. Project Concern needs money, medical supplies, dental and health hygiene kits, linens, vitamins, layettes and surgical instruments. Slides are available for a program.

Scholarships for Kids, a division of MAP helps qualified physicians with low incomes meet the educational needs of their children. Nebraska auxiliaries participated in 1975. Please consider these agencies' needs in your future planning.

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This list will appear monthly during the fund-raising campaign. Every effort will be made to give proper recognition to all supporters of this project. If you find an error has been made or your donation omitted, please contact the University of Nebraska Foundation, P.O. Box 30186, Lincoln 68503.

Helen L. Hayes, (Mrs. O. R.)
 State Chairman, Health Galleries
 Fund Raising Committee
 Nebraska Medical Association Auxiliary

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AS PRECIOUS
AS SIGHT HAVE
YOU HAD YOUR HE

TESTED LATELY A SIM
COMFORTABLE HEARING

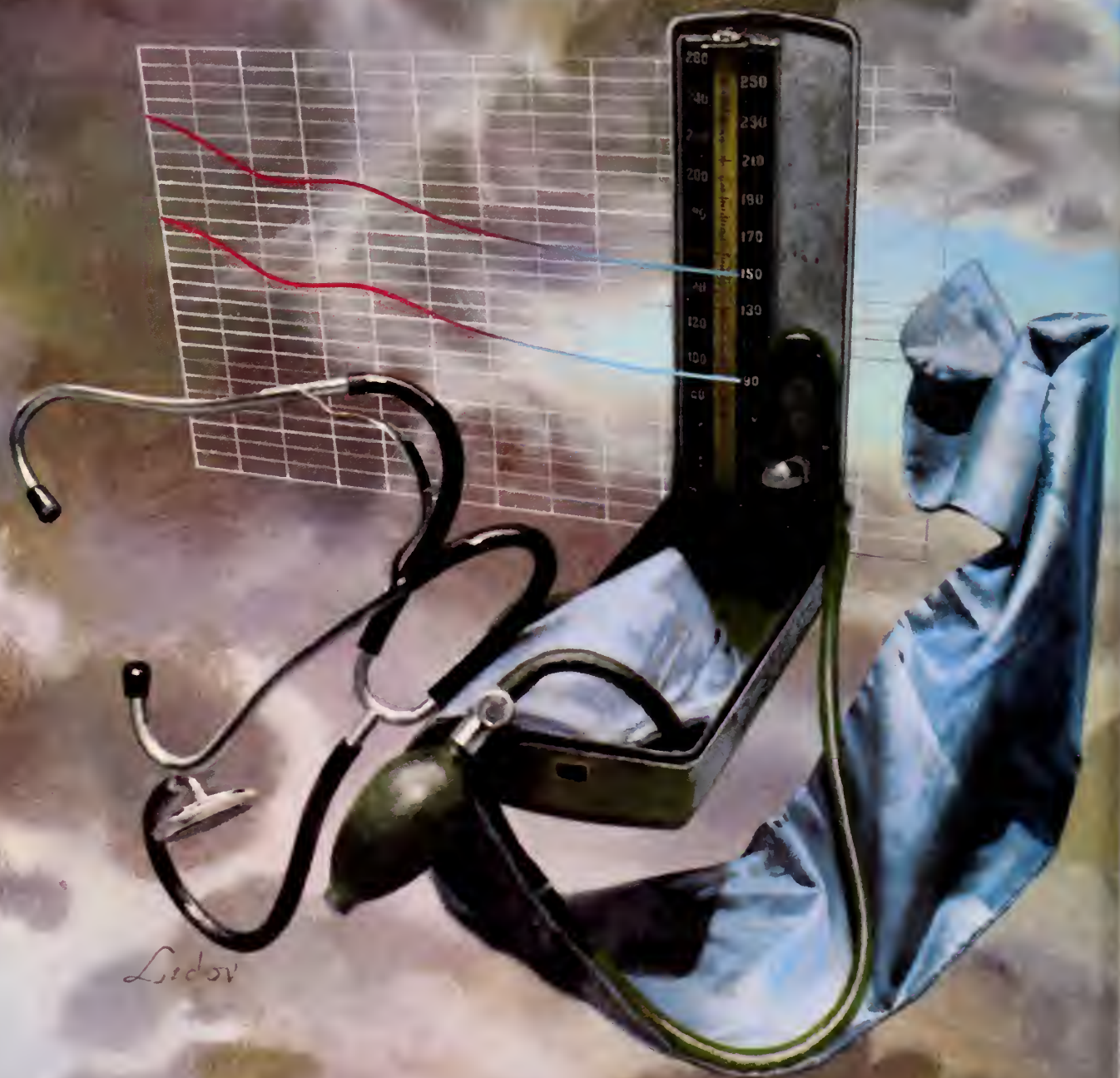
INVESTMENT OF A FEW MIN
Hearing losses are among the most consistently neglected health problems. Many people with them won't even admit it to themselves, let alone others. A little encouragement may start them thinking about themselves more realistically.

That's why we're offering you the poster shown here. You can hang it on the wall or stand it on a small table. It comes with booklets called "As precious as sight" that give your patients some basic facts about auditory testing and hearing losses and how easy they are to correct in many cases.

Write to us for your free poster and booklets. They just might help you to help some patients who aren't hearing as well as they used to. Even those who ordinarily wouldn't hear of it.

Professional Relations Division, Beltone Electronics Corporation
4201 West Victoria Street, Chicago, Illinois 60646, an American company

Beltone
WHEN A HEARING
AID WILL HELP



Ledov

When choosing a diuretic for day-in-day-out hypertension control with comfortable compliance...

The agent you choose in mild to moderate essential hypertension should offer (1) long-term effectiveness, (2) patient comfort and compliance.

Zaroxolyn offers both.

In one long-term study¹ Zaroxolyn brought moderately elevated (average 161/109 mm Hg) blood pressure down to the range of normotension—and held it there for a year or more.

The investigator noted, "Patient cooperation was surprisingly good for a study of such duration [1 1/2 years]. The once-daily dosage schedule with

metolazone [Zaroxolyn] no doubt contributed to patient compliance."

Overall compliance with Zaroxolyn is good—very good. An analysis of controlled clinical studies involving 188 Zaroxolyn patients showed that only eight discontinued therapy because of side effects. That's a discontinuation rate of only 4.3%, and broader clinical experience appears to substantiate this low rate²

Zaroxolyn. For long-term control and comfortable compliance in mild to moderate hypertension.

Recommended initial dosage in mild to moderate essential hypertension—2½ to 5 mg once daily

Zaroxolyn®

(metolazone, Pennwalt)

2½-mg, 5-mg and 10-mg tablets

once-daily antihypertensive diuretic

For prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:**

Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease. **Contraindications:** Anuria, hepatic coma or precoma; allergy or sensitivity to Zaroxolyn. Or, as a routine in otherwise healthy pregnant women. **Warnings:** In rare cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is a particular hazard in digitalized patients; dangerous or fatal arrhythmias may occur. Hypokalemia and hyperuricemia may be noted or precipitated. Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced. Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing

age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use.

Precautions: Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur in edematous patients in hot weather.

Adverse Reactions: Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth,

hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks.

Usual Initial Once-Daily Dosages: mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg. Dosage adjustment may be necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg.

References:

1. Dornfeld L, Kane R: Metolazone in essential hypertension. The long-term clinical efficacy of a new diuretic. *Curr Ther Res* 18: 527-533, 1975.
2. Data on file, Medical Department, Pennwalt Prescription Products.



Pennwalt Prescription Products
Pharmaceutical Division
Pennwalt Corporation
Rochester, New York 14603

DYAZIDE[®]

Each capsule contains 50 mg. of Dyrenium[®] (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

Trademark

MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION*

**LOWERS
BLOOD
PRESSURE**

**CONSERVES
POTASSIUM**

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

*** WARNING**

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

*** Indications:** When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

Contraindications: Further use in progressive renal or hepatic dysfunction; hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs. Routine use of diuretics in otherwise healthy pregnancy.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with

cardiac irregularities. It is more likely in severely ill patients with urine volume less than one liter/day, the elderly or diabetics, with suspected or confirmed renal insufficiency. Periodic determinations of serum K⁺ should be made. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. The presence of a widened QRS complex or arrhythmia in association with hyperkalemia requires prompt additional therapy. Thiazides are reported to cross the placental barrier and appear in breast milk; fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and other adverse reactions that have occurred in the adult may result. When used in pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium[®] (triamterene, SK&F Co.), and

leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotics to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion, since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules Single Unit Packages of 100 (intended for institutional use only).

SK&F CO., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation

**TRIAMTERENE CONSERVES POTASSIUM WHILE
HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE**

Between Cases

Classical Language Department.

Ad patres: (gathered) to his fathers = dead.

Words We Welcome.

Your analysis will be greatly appreciated, the letter said. Lewis Carroll would have loved it.

The History.

He is a 30-year old single nerve, been married.

Words We Can Do Without.

With a great deal of frequency, so be it, lubricity, inveigh, bucolic, beatific.

Section On Therapeutics.

The sound of the flute will cure epilepsy, and a sciatic gout.

Theophrastus.

On Committees.

Nothing is impossible until it is sent to a committee.

Anon.

On Internal Derangement Of The Knee.

What's *external*?

Our Schools.

57,236 medical students were enrolled in 116 medical schools in the U.S. in the fall of 1976.

What Does It Mean?

Iodine: violet.

Section On Osteology.

The H-bone is the aitchbone, which is the buttock, or the rump-bone in cattle, and the rump-bone is the sacrum. The haunch-bone is the os coxae, and *that* is the hip bone, or the ilium, the ischium, and the pubis. The haunch is the fleshy part of the hip and buttock.

On Sleep Disorders.

Insomnia was only bad if you had to go to sleep and wake at certain times.

Dubus: Separate flights.

Department Of Nutrition, Or Carnivores.

Americans consume an average of nearly 200 pounds of meat each year per person.

Quote Unquote.

By nature's kindly disposition, most questions which it is beyond a man's power to answer do not occur to him at all.

Santayana.

The V.A.

The U.S. veteran population increased to 29,607,000, a gain of 148,000 during the past year. That's at a rate of 0.5%.

— F.C.

Picture Gallery

November 6 Seminar on Athletic Medicine & Malpractice



John E. Murphy, M.D., Chairman of the Subcommittee on Athletic Medicine, presiding at Seminar.



Donald L. Cooper, M.D., Team Physician, Oklahoma State University, addressing Seminar.



Donald L. Cooper, M.D., Team Physician, Oklahoma State University, addressing Seminar.



Mr. Kelley Baker, Nebraska State School Boards Association Legal Counsel, addressing Seminar.



Dennis Sealey, R.P.T., University of Nebraska - Lincoln, addressing Seminar.



Seminar Audience.



Seminar Audience.

Our Medical Schools

Courses at U of N.

1. The University of Nebraska Medical Center will sponsor a course in obstetrics and gynecology at the Omaha Hilton, March 10 and 11, 1977.

Guest faculty includes two former chairmen of the department of obstetrics and gynecology at the Medical Center: Dr. Robert Messer, now chairman of obstetrics and gynecology at the University of New Mexico, and Dr. Warren Pearse, executive director, American College of Obstetricians and Gynecologists. Other guest faculty: Drs. Frank Boehm, Vanderbilt University; Ronald Chez, National Institute of Child Health and Human Development; Leo Lagasse, University of California at Los Angeles Medical Center; Paul McDonough, Medical College of Georgia; Gerald Ostheimer, Harvard Medical School.

The registration fee is \$75 for physicians and \$55 for allied health professionals.

Co-sponsor of the course is Creighton University School of Medicine.

Course coordinators are Drs. Joseph Scott and Robert Luby, chairmen of the departments of obstetrics and gynecology at the University of Nebraska Medical Center and Creighton University School of Medicine respectively.

2. Also scheduled for March is a course on immediate management of emergency patients, March 24 and 25.

Registration fee for the course at the Center for Continuing Education is \$70 for physicians and \$45 for other allied health professionals.

The program is acceptable for 11 prescribed hours by the American Academy of Family Physicians.

Course coordinators are Drs. Wilbur Muehlig and Gerard Van Leeuwen of the Medical Center's emergency department, and Mrs. Lorraine Hedman, director of continuing education for nursing.

WashingtonNotes

New HEW Secretary.

Washington lawyer, 45-year-old Joseph Califano, Jr., one of Lyndon Johnson's top "Great Society" architects, has been named Secretary of the Health, Education and Welfare Department.

He is regarded as one of the Capitol's brightest men. He knows the workings of government inside out. He knows most of the Congressmen of importance to HEW. And he knows most of the programs — many of them established during the "Great Society" days — that he will now administer.

The appointment of Califano to the politically sensitive position was the final cabinet selection by Carter, and was one of the best received. Liberals, including Ralph Nader, saw in Califano's "Great Society" background a promise of a bigger and better "Great

Society;" conservatives found reassurance in Califano's reputation as a steady political veteran who is interested in cutting down on waste and inefficiency.

Califano was first attracted to Washington with the election of John Kennedy. He joined the Defense Department where he quickly became one of Defense Secretary Robert McNamara's "Whiz Kids." Lyndon Johnson asked him to come to the White House to serve as his domestic aide. There he was known as a driving, tough negotiator between labor and management over wage-price guidelines. He was interested in a systems-analysis approach to budgeting federal agencies which should mesh with Carter's enthusiasm for "zero-based" budgeting.

Health care.

A concerted and united effort by industry

and labor to control medical costs is needed to avert a federal takeover of health which would "result in national expenditures of truly astronomical proportions," contends the President's Council on Wage and Price Stability.

In a lengthy report on rising health care costs, the Council said "cost control incentives proposed by the private sector — that is, by industry and labor — promise to be more effective than those imposed by the multitude of government agencies which have attempted to tackle the problem . . . the private sector is motivated by an economic incentive which the government will simply never share."

Medicaid abuse.

The AMA and state and local medical associations "have played a central role" in helping the Senate spotlight Medicaid fraud and abuse. The credit was given by Sen. Frank Moss (D-Utah), Chairman of the Senate Aging Subcommittee that conducted the well-publicized investigations of "Medicaid Mills" earlier this year.

The Senator also said "the number of physicians who cheat" is very small.

In Medicaid, the "ripoffs" are taken by the clinic owners who more often than not are not physicians, said Moss.

Drug reactions.

A commission to study prescription drug usage and adverse reactions has been formed with the blessings of Senator Edward Kennedy (D-Mass.) and the funding of the Pharmaceutical Manufacturers Association (PMA).

PMA answered a challenge by Kennedy that the drug makers confront the problem by agreeing to fund an independent study commission for three years at \$250,000 annually.

The 18 members of the Joint Commission on Prescription Drug Use were nominated

by pharmaceutical and medical groups including the AMA.

Drug abuse.

Drug abuse remains a "chronic, persistent problem" in the United States with no simple solutions in sight in the opinion of a joint annual report by federal agencies involved with drugs. The report proposed no basic shift in federal policy toward drug abuse, but suggested the possibility of lifting or easing criminal penalties for smoking marijuana.

President-elect Jimmy Carter said during his campaign he favored decriminalization of possession of small amounts of the product, but he supported continued crackdowns on sale and distribution.

Medical records & privacy.

Congress is showing increased interest in the problems of maintaining confidentiality of medical records in the age of computers and vast federal medical programs. The House Commerce Subcommittee on Oversight and Investigations is considering hearings on the issue next year.

The House Oversight Subcommittee, headed by Rep. John Moss (D-Calif), is carrying on a running dispute with the Social Security Administration over the privacy of medical records in the Medicare program.

Social Security operates three data transmission systems which link private Medicare intermediaries with the Social Security Health Insurance Data Bank. The two less sophisticated computer systems, the Advanced Record System (ARS) used by private Medicare intermediaries in 16 locations, and the Programmable Magnetic Tape Terminals (PMTT) used by Blue Cross, Blue Shield, and all but two other private intermediaries, use record retrieval systems "which cannot be abused by any employee of a private contractor either in an authorized or unauthorized manner," said Moss.



Cannot Tell A Lie—It Does Taste Like BANANAS!”

When acute, non-specific diarrhea causes the stomach to revolt, the tasteful counterattack is Donnagel®-PG. Donnagel-PG provides all the benefits of paregoric and—instead of that unpleasant paregoric taste—a delicious banana flavor good enough to make even an expert flip-flop his wig.

Now with child-proof closure

Donnagel®-PG[©]

Donnagel with paregoric equivalent
For diarrhea

Each 30 ml. contains:

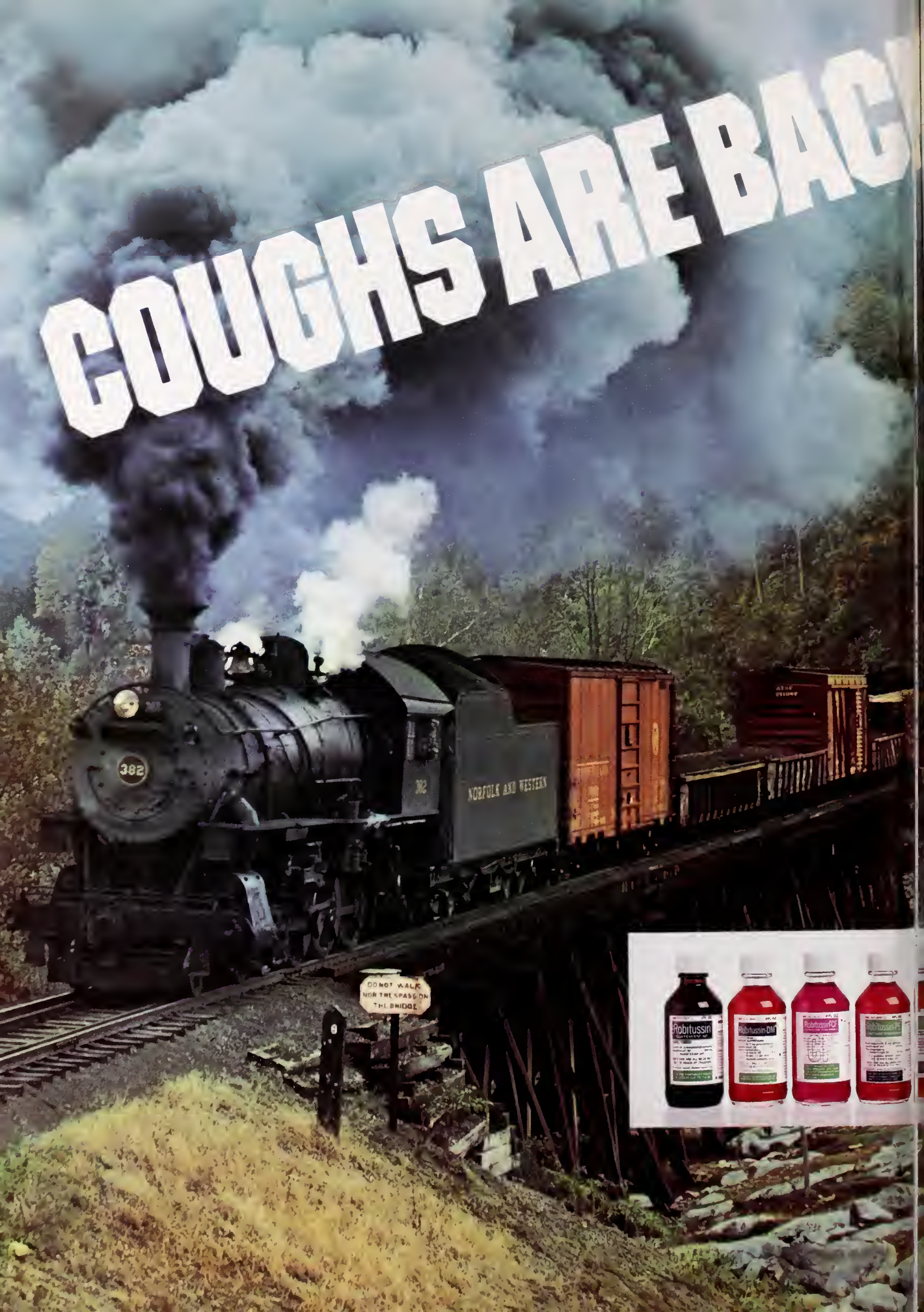
Kaolin	60 g
Pectin	142.8 mg.
Hyoscyamine sulfate	0.1037 mg.
Atropine sulfate	0.0194 mg.
Hyoscine hydrobromide	0.0065 mg.
Powdered opium, USP	24.0 mg.
(equivalent to paregoric 6 ml.)	
(warning: may be habit forming)	
Sodium benzoate	60.0 mg
(preservative)	
Alcohol, 5%	

H. ROBINS

A. H. Robins Company, Richmond, Virginia 23220

Member of Certified Medical Representatives Institute

COUGHS ARE BACK



CLEAR THE TRACT

For coughs of colds,
"flu" and u.r.i.—
clear the tract
with the famous
Robitussin® Line!

The 5 members of the Robitussin® family all contain the expectorant, guaifenesin, to help clear the lower respiratory tract. Guaifenesin works systemically to help stimulate the output of lower respiratory tract fluid. This enhanced flow of less viscid secretions promotes ciliary action and makes thick, inspissated mucus less viscid and easier to raise. As a result, dry, unproductive coughs become more productive and less frequent.

For productive and unproductive coughs

Robitussin®

Each 5 ml teaspoonful contains:
Guaifenesin, NF 100 mg
Alcohol, 3.5%

For severe coughs

Robitussin A-C®

Each 5 ml teaspoonful contains:
Guaifenesin, NF 100 mg
Codeine Phosphate, USP 10.0 mg
(warning: may be habit forming)
Alcohol, 3.5%

Non narcotic for 6-8-hour cough control

Robitussin-DM®

Each 5 ml teaspoonful contains:
Guaifenesin, NF 100 mg
Dextromethorphan
Hydrobromide, NF 15 mg
Alcohol, 1.4%

Decongests nasal passages and sinus
openings as it helps relieve coughs

Robitussin-PE®

Each 5 ml teaspoonful contains:
Guaifenesin, NF 100 mg
Pseudoephedrine
Hydrochloride, NF 30 mg
Alcohol, 1.4%

Decongestant action helps control cough and
clear stuffy noses and sinuses. Non narcotic.

Robitussin-CF®

Each 5 ml teaspoonful contains:
Guaifenesin, NF 50 mg
Phenylpropanolamine
Hydrochloride, NF 12.5 mg
Dextromethorphan
Hydrobromide, NF 10 mg
Alcohol, 1.4%

All Robitussin formulations available on your
Rx or Recommendation.

For many years Robins has spotlighted the expectorant action of the Robitussin cough formulations by featuring action photographs of steam engines like the one on the preceding page. In keeping with this tradition, last year the company commissioned a well-known illustrator to render full-color drawings of several classic locomotives . . . accurate to the minutest detail. Chances are you requested and received the first locomotive in this series, The William Mason, last winter. Now, the second one is available. (See below). To order your print suitable for framing, write "Robitussin Clear-Tract Engine #2" on your Rx pad and mail to "Vintage Locomotives," Dept. T4, A. H. Robins Company, 1407 Cummings Drive, Richmond, Va. 23220.



PHOTO: Norfolk & Western Branch Train
No. 202 west bound near Alvarado, Va. (Oct., 1956).
This line reaches the highest point of any railroad
west of the Rockies (elevation 3,577 ft.) with a
minimum grade of 3%. It crosses 108 bridges,
some 700 ft. long! Photo by O. Winston Link.

A.H. ROBINS

A. H. Robins Company, Richmond, Va. 23220

Coming Meetings

CRIPPLED CHILDREN'S CLINICS

February 12 — Scottsbluff, St. Mary's Hospital

March 5 — Kearney, Elks Lodge

March 19 — Sidney, Elks Lodge

A CONFERENCE ON "THE RIGHTS OF THE TERMINALLY ILL" will be held at the Nebraska Center for Continuing Education in Lincoln, February 4 & 5, 1977. It is open to anyone interested in the rights or care of the terminally ill. The conference is sponsored by the Center for Humanities and Medicine, University of Nebraska College of Medicine; the Extension Division, University of Nebraska-Lincoln; the Gerontology Program, University of Nebraska at Omaha; and the Department of Philosophy, University of Nebraska-Lincoln. Write to: Chuck Havlicek, Program Coordinator at the Nebraska Center for Continuing Education, 33rd & Holdrege Sts., Lincoln, Nebraska 68583; telephone (402) 472-2852.

CORONARY CARE AND THE PRACTICING PHYSICIAN, February 16-18, 1977, Creighton Health Center, 10th and Dorcas, Omaha, Nebr. Sponsored by Creighton University School of Medicine. This continuing medical education offering meets the criteria for 20 hours credit in Category 1 for the Physicians Recognition Award of the AMA, and is acceptable for 20 prescribed hours credit by the AAFP. Course fee: \$150. For more information contact Medical Dean's Office, Continuing Education Coordinator, Creighton University, 2500 California, Omaha, Nebr. 68178; phone 402/449-2900.

NEBRASKA ACADEMY OF FAMILY PHYSICIANS — Annual Scientific Session, March 24-25, 1977, Cornhusker Hotel, Lincoln, Nebraska.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

INDIANA CHAPTER ACEP-EDNA EMERGENCY MEDICINE SEMINAR will be held at the Airport Hilton Inn, Indianapolis, Indiana on May 11 through May 14, 1977. CME Credits Applied For: 20 hours; Co-sponsor: Indiana University School of Medicine. Fee: \$50.00 - \$100.00. Contact: David Gettle, M.D., 10005 Hillsdale, Carmel, Indiana 46032, 317-844-7105. Note: This seminar is in conjunction with the first day of Time Trials for the Indianapolis 500 Memorial Day Race.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, Fairmont Hotel, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 29 & 30, October 1, 1977, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION —
Interim Session, House of Delegates,
December 4-7, 1977, Palmer House, Chicago,
Illinois.

AMERICAN MEDICAL ASSOCIATION —
Winter Scientific Program, December 10-
13, 1977, Miami, Florida.

COLONOSCOPY TRAINING PROGRAM —
The New York Society for Gastrointestinal
Endoscopy supported by a Cancer Control
Grant from the American Cancer Society,
will now offer two week training programs
in the techniques of fiberoptic colonoscopy
for the detection and management of
colonic neoplasm to qualified physicians
and surgeons. The training program will
be conducted at several institutions in
New York City. Preference will be given
to those physicians and surgeons who have
had previous experience with fiberoptic
endoscopy and who are from community
where fiberoptic colonoscopy is not yet
readily available. Please send curriculum
vitae to: Paul Sherlock, M.D., Chief
Gastroenterology Service, Memorial Sloan-
Kettering Cancer Center, 1275 York
Avenue, New York, New York 10021.

The Letter Box

Dear Doctor Cole:

It was an exciting and interesting holiday
edition. I liked it all but especially your
reflections.

I am sure you will be even better in 1977!

Best regards.

Most sincerely,

Joseph C. Shipp, M.D.
Professor and Chairman

Books



Current obstetric & gynecologic diagnosis & treatment; by Ralph C. Benson, M.D. and associated authors; 7¼ by 10¼ inches, 911 pages; \$16 limpcover; published 1976 by Lange Medical Publications, Los Altos, California.

This is the first edition of CO&GD&T; it is a new textbook, and the second edition is to appear within two more years. Including Dr. Benson, who is Clinical Professor of Obstetrics & Gynecology and Emeritus Chairman, Department of Obstetrics & Gynecology at the University of Oregon Health Sciences Center, Medical School, Portland, Oregon, there are 42 authors.

The book is conveniently divided into 44 chapters, and there are an appendix, an index, and conversion tables. There are figures, tables, and references. My favorite endotracheal tube for infants is recommended on page 682.

Marital counseling and sex therapy are there, there is a chapter on applied genetics, carcinoma of the breast is discussed, sex chromosome abnormalities are included, as well as everything else you can think of in obstetrics and gynecology.

I liked the book.

—F.C.

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Physicians' Classified

FOR SALE: Doctor's office with full line of equipment one-year old. Three examining rooms, X-ray, laboratory, and office. 30-bed hospital 15 minutes away. Contact: L. Jay McIntyre, M.D., P.O. Box 245, Wolbach, Ne. 68882.

ONE OF LINCOLN'S finest Medical-Dental Office Buildings will have available after November 1, 1976, one large and one medium sized medical office suite. Will redecorate or redesign to suit tenant. Please contact Dick Gaughan, 489-2718 or Dr. T. L. McKee, 489-5440 or call at Business Office, Suite 1600, 5440 South Street.

PSYCHIATRIST III VACANCY: DUTIES: Will do psychiatric evaluation and interviewing of legal offenders at the Nebraska Penal Complex. Works in the psychiatric ward making diagnosis of mental illness as it relates to psychopathic personalities and psychosis created as a result of dependency on drugs. QUALIFICATIONS: Medical degree plus completed residency in psychiatry from an approved psychiatric institution or clinic. Certification by the American Board of Psychiatry and Neurology preferred. SALARY RANGE: \$37,800-\$51,972. If interested, contact Karen A. Grover, Placement Officer, State Department of Personnel, Lincoln, Nebraska 68509, Telephone: (402) 471-2075.

THE ANXIETY-SPECIFIC.

- a predictable pattern of patient response
- seldom associated with serious side effects, in proper dosage
- rarely interferes with mental acuity
- used concomitantly with many primary medications
- three dosage strengths meet most patient needs

LIBRIUM® chlordiazepoxide HCl/Roche 5 mg, 10 mg, 25 mg capsules

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psycho-

Libritabs® (chlordiazepoxide) available in 5 mg, 10 mg and 25 mg tablets.



tropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relation-

ship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10.

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Please see following page.

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*If you have a question about Librium or any other Roche product, write to Professional Services, Roche Laboratories, Nutley, New Jersey 07110.

Please see preceding page for a summary of product information.



BALCONY

The Nebraska Medical Journal

March, 1977

A character all its own.



Valium (diazepam) is a benzodiazepine with a character all its own.

Pharmacologically, it has been described as more potent mg-per-mg than other available anxiolytic benzodiazepines. Pharmacokinetically, only Valium provides active *diazepam* as well as the active metabolites 3-hydroxydiazepam, desmethyldiazepam and oxazepam.

But the individual character of Valium is even more apparent clinically than pharmacokinetically. And far more significant. That's because of the patient response obtained with Valium. A response which brings a calmer frame of mind. A response which has a pronounced effect on the somatic symptoms of anxiety, particularly muscular tension. A response which helps the patient feel more like himself again because of the way Valium reduces the overwhelming symptoms of anxiety and psychic tension.

Another important aspect of the clinical character of Valium is safety. Though drowsiness, ataxia and fatigue are possible, these and more serious side effects are rarely a problem. Of course, as with all CNS-acting drugs, patients taking Valium should be cautioned against driving, operating dangerous machinery or the simultaneous ingestion of alcohol.

Unquestionably, many psychotherapeutic agents, including other benzodiazepines, have antianxiety effects. But one fact remains: you get a certain kind of patient response with Valium. It's a response you want. A response you know. A response you trust as part of your overall management of anxiety and psychic tension.

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a prudent choice in psychic
tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.



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The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
3901 So. 27th St., Lincoln 68502

MARCH 1977

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Harvard Medical School's Ned Cassem To Be

Medicine and Religion Dinner Speaker

at The NMA's 109th Annual Session,
7 p.m., Sunday, May 1,
at the Holiday Inn of Omaha,
3321 So. 72nd Street



Edwin Hughes (Dr. Ned) Cassem is Associate Professor of Psychiatry at Harvard Medical School in Boston, Mass. Dr. Cassem's articles on death and acceptance of death have been widely published. He is Project Supervisor for the Postoral Encounters with the Disabled and Dying, Yauville Hospital, Cambridge, Mass., and Boston Theological Institute. He is Director of Liaison Psychiatry of Massachusetts General Hospital in Boston. Dr. Cassem is a Trustee of Creighton — Nebraska Universities Health Foundation, member of the Editorial Board, Heart and Lung, Canadian Institute of Religion and Gerontology, and Chairman of the Jesuit Council for Theological Reflection.

Medicine and Religion Dinner sponsored by the NMA Medicine and Religion Committee.

Registration Forms for the Session and Ticket Forms
will be distributed in early April

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Illustrations should be numbered and their locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be black (India ink) on pure white. Photographs should be on glossy paper and a minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

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Letters to the Editor submitted for publication should be prepared as above, and must carry the notation: To be Published.

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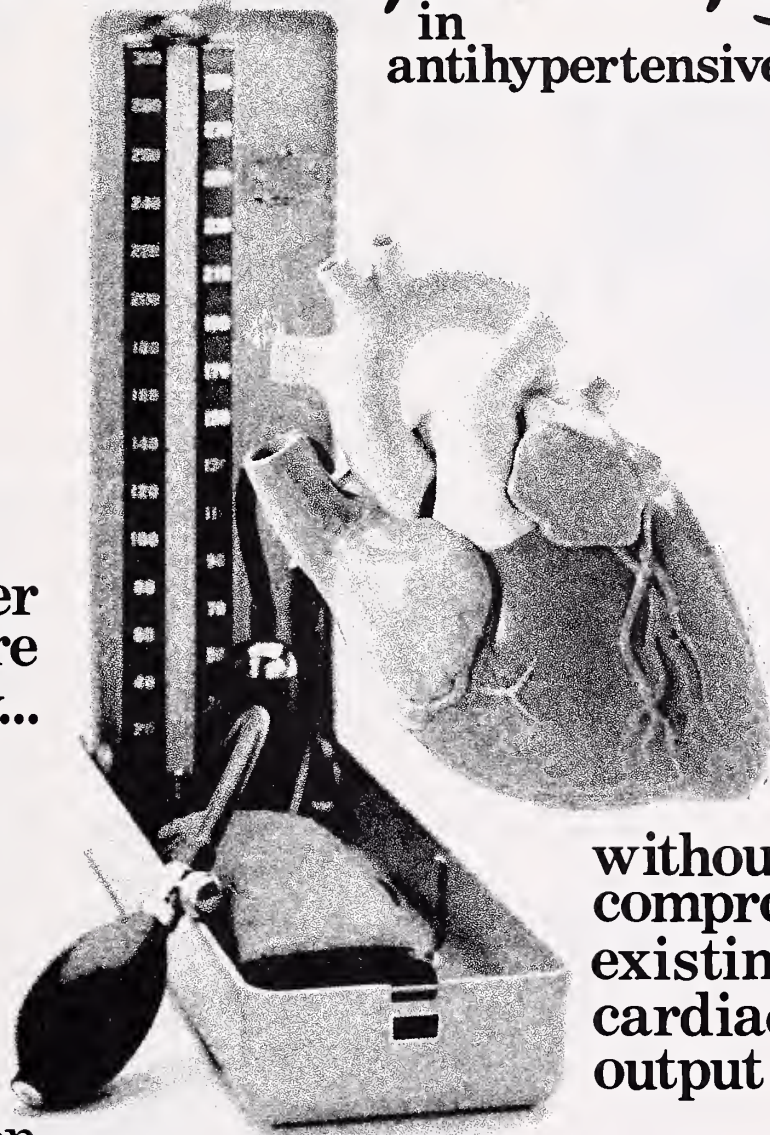
Components of Blood Pressure and Risk of Atherothrombotic Brain Infarction: The Framingham Study — W. B. Kannel et al
(Framingham Heart Study, 123 Lincoln St, Framingham, MA 01701) Stroke 7:327-331 (July-Aug) 1976.

From a study of the evolution of atherothrombotic brain infarction (ABI) in the Framingham cohort of 5,209 men and women over 18 years of follow-up, it has been ascertained that hypertension is the most common and most powerful precursor. Atherothrombotic brain infarction developed in hypertensive patients seven times more often than in normotensive patients, and the risk was proportional to blood pressure throughout its range. Various components of blood pressure, including systolic and diastolic blood pressure, pulse pressure, lability of pressure, mean arterial pressure, and tension-time index, were analyzed in relation to ABI incidence. While all measures were associated with ABI incidence, the simple casual systolic pressure emerged as good a predictor of ABI incidence as any other component.

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It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

For a brief summary of prescribing information, please see following page.

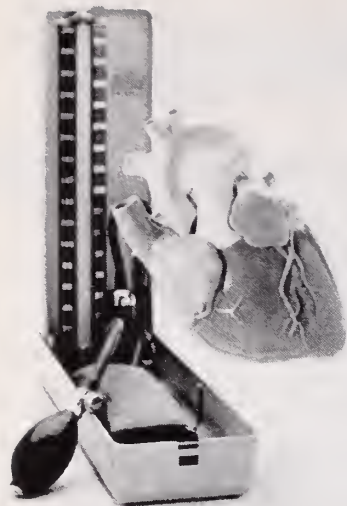
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cardiac output is
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Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis; if previous methyl dopa therapy has been associated with liver disorders (see Warnings); hypersensitivity

Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyl dopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyl dopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyl dopa. If a positive Coombs test develops during methyl dopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyl dopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyl dopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyl dopa, the drug should not be reinstituted. When methyl dopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyl dopa is stopped.

Should the need for transfusion arise in a patient receiving methyl dopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or

cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyl dopa. If caused by methyl dopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyl dopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Use in Pregnancy: Use of any drug in women who are or may become pregnant requires that anticipated benefits be weighed against possible risks; possibility of fetal injury can not be excluded.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyl dopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyl dopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyl dopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyl dopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyl dopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia.

Allergic: Drug-related fever, myocarditis.

Other: Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third month of therapy; increased dosage or adding a thiazide frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

How Supplied: Tablets, containing 125 mg methyl dopa each, in bottles of 100; Tablets, containing 250 mg methyl dopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyl dopa each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486 J6AM07 (707)

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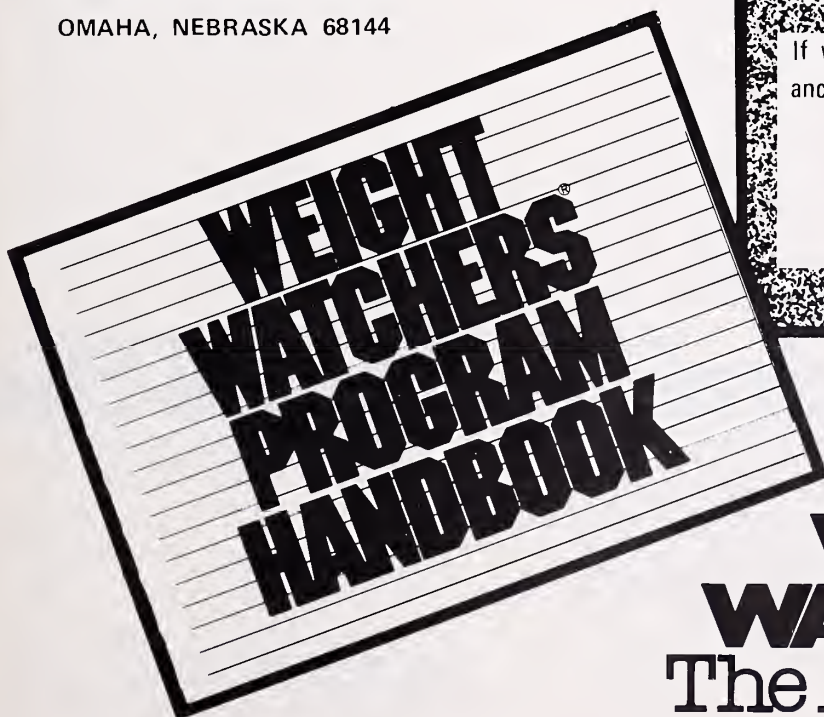
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Each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine HCl, and 2 mg phenobarbital, the alcohol content is 15%.

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Tedral Elixir: each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine hydrochloride, and 2 mg phenobarbital; the alcohol content is 15%.

Indications. Tedral, Tedral SA, and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal or perennial asthma.

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Contraindications. Sensitivity to any of the ingredients; porphyria.

Warnings. Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

Precautions. Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

Adverse Reactions. Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

Average Dosage. *Prophylactic or Therapeutic.*

Tedral: Adults—One or two tablets every 4 hours. **Children**—(Over 60 lb) one-half the adult dose.

Tedral SA: Adults—One tablet on arising and one tablet 12 hours later. Tablets should not be chewed. **Children**—Not established for children under 12.

Tedral Elixir: Note: One teaspoonful is equivalent to *one-quarter* Tedral tablet. **Children**—One teaspoonful per 30 lb body weight, every 4-6 hours, unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution. **Adults**—One to two tablespoonfuls every four hours.

Supplied. Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

Tedral SA: Double-layered, uncoated, coral/mottled white tablets in bottles of 100 (N 0047-0231-51) and 1000 (N 0047-0231-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0231-11).

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Myocardial Infarction: Comparison Between Home and Hospital Care for Patients — H. G. Mather et al (institute of Biometry and Community Medicine, Univ of Exeter, Exeter, England) *Br Med J* 1:925-928 (April 17) 1976.

A total of 1,895 episodes of myocardial infarction were studied in men less than 70 years old. In 450 cases, the place of treatment was randomly allocated between home and hospital. Randomization appeared successful in respect to age, past history of cardiovascular disease, and incidence of hypotension when first examined. The mortality of the random home group at 20 days was 12% and for the hospital group, 14%. At the 12-month follow-up, the equivalent rates were 20% and 27%. On average, older patients and those with initial hypotension fared better under home care. The results confirm preliminary findings that home care is a proper form of treatment for many cases of myocardial infarction, particularly in those aged 60 years and those with an uncomplicated attack seen by general practitioners.

an NMA 109th Annual Session highlight . . .

SYMPOSIUM

on the

Diagnosis and Treatment of Gastrointestinal Hemorrhage

featuring

Howard M. Spiro, M.D.

*Professor of Medicine
Yale University School of Medicine
New Haven, Connecticut*

Robert I. White Jr., M.D.

*Associate Professor of Radiology
and Director, Cardiovascular Diagnostic Laboratory
The Johns Hopkins Hospital, Baltimore, M.D.*

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BRIEF SUMMARY OF PRESCRIBING INFORMATION

***INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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1977 ANNUAL SESSION

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MEDICINE AND RELIGION DINNER
Speaker: Ned H. Cassem, M.D.

MONDAY — MAY 2

HOUSE OF DELEGATES
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SPORTSMAN'S DAY

TUESDAY — MAY 3

OPENING CEREMONIES
SYMPOSIUM ON THE DIAGNOSIS AND
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HEMORRHAGE
ATHLETIC — MEDICINE LUNCHEON
Speaker: Mr. Jesse Owens
SYMPOSIUM ON SUICIDE
FUN NIGHT

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The Lactose Intolerance Issue

Recent research shows lactose intolerant persons can drink nutritionally useful quantities of milk without adverse effects.

Digestion of milk's principal sugar, lactase, depends upon the intestinal enzyme lactase. Recent medical research shows that most people who have decreased levels of lactase are still able to consume useful quantities of milk without suffering discomfort; especially when they drink milk as a part of a meal or with other foods.

Two researchers at the Massachusetts Institute of Technology, Nevin S. Scrimshaw, Ph.D., M.D., and Cutberta Garza, M.D., studied the reactions of both black and white children who had been found "lactase intolerant."

The children were fed up to two 8-ounce glasses of milk. At another time, they were given varying amounts of lactase mixed into peanut butter sandwiches. Even though many of the children, ages 4 to 9, had low levels of lactase, they did not experience adverse symptoms.

Children in earlier studies were given doses of lactase equivalent to drinking a quart of milk on an empty stomach. And because some children had lower levels of lactase-digesting enzyme lactase, symptoms appeared. Drs. Garza and Scrimshaw say that these early testing methods were responsible for unrealistic conclusions on lactase intolerance.

— A primary resource for nutrition education. —



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Track and Field Star, Jesse Owens to speak

at the NMA 109th Annual Session on
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Today, 40 years after earning the title of the 'World's Fastest Human' in the 1936 Olympics, Jesse Owens continues in the front ranks of athletes. He is committed to making available better and more educational opportunities for all young and has established the Jesse Owens' Educational Foundation. In 1976, President Ford presented Owens the Medal of Freedom, the highest honor the United States can bestow upon a civilian. Now residing in Phoenix, Ariz., this Olympian serves on the Boards of Memorial Hospital, National Conference of Christians and Jews and Bays Town. He set world records in the dash and broad jump . . . and his broad jump record stood until 1960, some 24 years.



Hear Jesse Owens
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Registration Forms for the Session and Ticket Forms
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Long-Term Survival of Elderly Patients After Pacemaker Implantation — S. Amikam et al (Rambam Government Hosp, Haifa, Israel) *Am Heart J* 91:455-459 (April) 1976

The follow-up of 80 patients above the age of 70 years with implanted pacemakers is described. These patients were the most advanced in age from a total group of 150 with implanted pacemakers. Their ages ranged from 70 to 87 years with an average age of 75.4 years; 50 were male and 30 were female. An epicardial electrode was implanted in 13 patients and an endocardial electrode in 67. The pacemaker was implanted in 76 patients for symptomatic atrioventricular block and in four patients for sick-sinus syndrome. Two patients (2.5%) died during the postoperative period and 19 patients within a period of three months to six years after implantation. The survival rates were: one year, 90.0%; two years, 82.1%; three years, 74.1%; four years, 67.2%; five years, 58.3%. These survival rates in the most advanced age groups decreased in comparison only in the fourth and fifth years after implantation. There was no evidence of new episodes of myocardial infarction among this group of patients during the follow-up period. Even in patients of the most advanced age groups, the implantation of an endocardial pacemaker substantially prolongs life, improves its quality, and has a low operative risk.



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Neuro-Psychiatric Institute, Los Angeles, California

discusses

Reflections on Suicide and Suicide Prevention *followed by panelists representing psychiatry, general practice and law*

Questions - Discussion

Robert G. Osborne, M.D.
Moderator

NMA Auxiliary Invited

2:30 - 4:15 p.m.
Tuesday, May 3

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Our Medical Schools . . .

Professorship at Creighton.

The Department of Surgery at the Creighton University School of Medicine has established a visiting professorship in honor of the late Dr. Earl A. Connolly, a 1918 graduate of the School of Medicine. Dr. Connolly died in April, 1976.

The Lectureship has been made possible through contributions received through the E. A. Connolly Memorial Fund.

Selected to present the first lecture was Frank G. Moody, M.D., F.A.C.S., professor and chairman of the Department of Surgery at the University of Utah College of Medicine. Dr. Moody spoke February 5, 1977, at St. Joseph Hospital. The 1977 Dr. Earl Connolly Memorial Lecture was entitled, "Stress Erosions: Fancy, Fact, and Fiction."

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Mailgram 2

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



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Retrograde Ejaculation: Pathophysiologic Aspects and Report of Two Successfully Treated Cases — M Glezerman et al (Chaim Sheba Medical Center, Tel Hashomer, Israel) *Fertil Steril* 27:796-800 (July) 1976.

The ejaculatory process consists of two stages. During the first stage the semen is pumped into the posterior urethra and during the second stage the semen is propelled via the urethra through the external meatus. A pathologic second stage may lead to retrograde ejaculation of the semen into the urinary bladder. Attempts to achieve fertility in such patients can be made in two ways; namely through procedures to restore antegrade ejaculation (mainly using α -sympathomimetic agents) and procedures to regain viable and fertile sperm from the urinary bladder after sexual intercourse, with subsequent artificial insemination. The latter way of treatment was used in two patients who were referred for infertility and in whom retrograde ejaculation had been diagnosed. Postcoital urinary specimens were obtained by micturition and centrifuged. In one patient the sediment was washed with a nutrient solution; the other patient received alkalizing agents prior to intercourse in order to neutralize the urinary pH. The wives were inseminated on appropriate days and conceived.



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THE NEBRASKA MEDICAL JOURNAL

WHO IS NORMAL?

If my BMR is higher than yours, I move faster than you do, and you all seem to be moving in a dream world; if it is low, why then, you look as though you are hurrying all the time, and running when you should be walking. The only thing is, though, there are more of you than there are of me, and that is what counts.

They were tying up a poor fellow who they felt was behaving strangely, like being hostile or overfriendly, and he asked why are you doing this to me, I'm all right. Then how come we are tying you up if you're all right; why aren't you tying us up. And he said, there isn't enough rope.

A hemoglobin that is over or under the mark may not be good for you, and a too-high under-the-tongue temperature may not be exactly what you want. But what of height and baldness, and what about situs inversus? Why do we do whatever we have done about lefthandedness, why do we stare at eyes that do not match, and why do we care about six fingers on a hand?

Body odor and eructation do not offend in some quarters, and what is immoral here is innocent there. It is like malpractice where want of skill is to be shown; you have, in some cities, only to conform to what is normal where you live.

Can it be, then, that a BMR of minus 25, or one of plus 30, is all right; different, but all right? If your hair falls out, are you ailing? If you were seven feet tall, you once fled to flat shoes; now you play basketball and glory in your height.

Supernumerary nipples may come out, though, along with extra fingers and thyroids, teeth are straightened, and southpaws are too often switched. Is it so we will conform? Or are deviations from what we see around us downright harmful?

—F.C.

WHAT IS SO RARE AS A DAY IN MARCH?

A day in December, that's what, or February 29th. But it's a nice day, and somebody said it's 22, and I think she means Celsius.

An absolute scale is counted from absolute zero (-459.67 F). Kelvin is an absolute scale

whose unit is the same as Celsius, but the ice point is 273.15. Rankine is absolute; the unit is a Fahrenheit unit, and the ice point is 459.67.

Centigrade means the interval between two established points is divided into 100 units. Celsius is like that, and the ice point is zero, and the boiling point of water is 100.

The ice point is 32 in Fahrenheit, and water boils at 212. In the Réaumur scale the ice point is zero, and the boiling point of water is 80.

They tell you Celsius now, but I'm a stickler for Kelvin, so it's a nice day all right, but it's 293.15 degrees. Come to think of it, I like Réaumur too, and it's 17.6 degrees Réaumur (71.6 F).

I should like a Centigrade scale where all the temperatures we ever see are positive, and we would never have to contend with below zero. Have a nice day. I hope I figured it out right.

—F.C.

THE MEDICAL WRITER

A medical author is like a presidential candidate. He has an idea, he does something, and he has then to put it into words. But the runner-for-high-office is smart. He is like the fellow who has become famous as an actor or an athlete, but not as a writer, and who wants to write a book. The celebrity and the candidate send for a specialist. The author gets a coauthor, and the book's title page says *as told to*, or simply, *with*. The president gets a speech-writer.

Does the physician want someone like the coauthor and the speech writer to set down in words what he has done? Would he be well advised to consult with the professional writer; and with the statistician who, in his ivory tower, can tell him if the experiment has been properly done?

We are specializing all over the place. Maybe the medical author needs the medical writer.

—F.C.

REST

Stay in bed, we tell everybody, drink plenty of fluids; and get all the rest you can. And aspirin; why aspirin, I am not sure I know. Liquids dilute toxins, but they do the same to

friendly antibodies. And you cannot drink fluids and stay in bed.

But what of bed and rest? What does rest do for you?

When you are injured on the football field, or when you are struck down by a filtrable virus, you rest. On the playing field, you rest instantly; the virus takes a little longer.

We cannot stand without effort, as horses do, and when we relax, we lie down. And when we rest, we assume our one position of stable equilibrium, we lie down.

Exercise is good. Consider early ambulation, which was thrust upon us. We once kept people in bed for two weeks after hernia repair. Now it's two hours, and they get better faster. In hospital four weeks, now one, and they get better in droves.

Why rest?

We sleep because we must, I think. Is resting, lying down awake, as good as sleep?

It probably is.

—F.C.

Radiation Therapy in the Management of Carcinoma of the Prostate

THE treatment of carcinoma of the prostate has been evolving since 1905 when Hugh Young performed radical perineal prostatectomy for carcinoma of the prostate.¹ Essentially, no therapeutic successes were achieved with kilovoltage radiation therapy because of the poor depth dose and the limiting factor of skin tolerance in the perineal area. In 1941, Huggins and Hodges introduced endocrine therapy in the treatment of carcinoma of the prostate.² External irradiation — though now available in the megavoltage range — was still not used because of poor results and the notion that adenocarcinoma of the prostate was radio resistant. We now know that almost all mammalian cells have about the same radiosensitivity to external irradiation.³ A cell may be biologically dead in that it is unable to undergo further cellular division, but may appear quite healthy under a microscope. However, this may be under the microscope and on the Petri dish, at the present time we must rely upon clinical parameters for results of treatment.

Megavoltage external radiation really did not get started until the late 1950s with the use of 60-Cobalt. Until the quite recent past, only small numbers of patients have been reported on in the literature. Most of the scattered reports in the literature deal with small numbers, reach no conclusions, and end by saying that more study is needed with more numbers. A notable exception has been the work of Ray⁴ at Stanford University in which he reports on a sizeable number of patients, with some fairly definitive results. As far as survival goes, probably 15 years is needed in a study for definitive answers. Even then it is quite difficult to compare one method of treatment with another because of so many variables: such as patient population, treatment methods, and different statistical methods.

Carcinoma Limited to the Prostate

The five-year survival for radical prostec-

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tomy ranges from 30 to 91% in the literature. These results are impressive, but the selection of patients for radical prostatectomy is limited to about 5% of male patients. If the strict selection criteria are violated, a local recurrence rate of about 20 or 30% occurs.⁵ At this point in time, radiation therapy appears effective for (1) disease localized to the prostate, but too extensive for surgical cure, (2) poor operative risks, and (3) those who refuse surgery for fear of impotence.

Extraprostatic Spread

This is Stage C or III. At this stage of the disease, surgery is no longer curative.⁶ Several treatment options are open for this stage, such as (1) surgery preceded by estrogen therapy,⁷ (2) radioactive source installation or implantation,⁸ and (3) external irradiation.⁹

A significant difference in survival between Stage B and C is obvious after treatment with external irradiation.⁴ This difference is probably attributable to extension of tumor by lymphatic or vascular channels beyond the treatment volume, even though the tumor and central nodes are sterilized. A number of studies have indicated that a high percentage of lymph-node involvement is present with carcinoma of the prostate. It ranges from about 7% with small tumors limited to the prostate to up to 90% with microscopic seminal vesicle involvement.^{10, 11} Because of this lymph-node involvement, lymphograms are now being considered part of a diagnostic workup, just as is bone marrow biopsy. There appears to be about an 88% correlation between the x-ray and laparotomy findings.¹² With the wider use of lymphangiography in the future, treatment

portals may be better defined and improved survival obtained. The lymphangiogram findings may have some definitive pertinence with regard to radiation therapy and its success or failures. In the treatment of localized disease in and around the prostate, most of the treatment failures occur because of distant extension of the carcinoma out of the local area. Theoretically, it would seem logical to extend the treatment fields to encompass cranial microscopic extension of disease. Time will tell if the newer radiotherapy techniques are more successful, along with large numbers of patients. There is morbidity associated with external irradiation, and sometimes the attainment of a cure should not be a goal when the quality of life is decreased because of morbidity.¹³ With the use of doses lower than those used in the past, lower rates of morbidity are being seen, and the picture may be clarified in the future.

At the end of a course of external irradiation for adenocarcinoma for the prostate, one is sometimes unable to detect a noticeable decrease in size of the prostate gland. Only about 30% of enlarged glands are smaller at the end of a course of treatment. About 10% may actually be increased in size, secondary to tissue edema. However, in about six months, 90% of them will be smaller. Because of this, it is probably best to reserve clinical judgment regarding any tumor recurrence for about nine months.¹⁴

The radiation failures are usually detected by physical findings, especially rectal palpation. As mentioned before, it is best to wait about nine months to make a decision regarding whether a patient has failed locally or not. About $\frac{3}{4}$ of the treatment failures will occur within the first two years after radiation therapy. About $\frac{1}{3}$ will be local failures with disseminated disease, about $\frac{2}{3}$ will have metastases with local control. Local failure of control alone is uncommon.⁴

Morbidity of Radiation Therapy

About 40% of patients will have acute GI or GU symptoms secondary to external radiation.¹⁵ This is probably a conservative figure. The most common GI complaint is a change in bowel habit secondary to radiation proctitis. The most common GU complaint is

dysuria or frequency. Severe symptoms usually subside after treatment, and after three months, about 10% of patients will have persistent severe GI or GU symptoms. Essentially all of these patients will get better in one year with conservative treatment. The persistent severe GI symptoms are due to increased friability of the rectal mucosa, and this is noted with blood streaking of the stools. The persistent severe GU symptoms are dysuria and urethral stricture. Urethral strictures are correlated with (1) having more than two TURs before radiation therapy, (2) having a urethral catheter before or during therapy, and (3) excessively high tumor dose (over 7800 rads).⁴ The complication of urethral stricture is not being seen as frequently now because lower tumor doses are being used.

Most acute symptoms disappear within one month after completion of radiation therapy. Acute GI symptoms usually appear during the fourth or fifth week of treatment. Treatment consists of a low residue diet and hydrocortisone suppositories. Dysuria and frequency sometimes noted may be due to infection and should be treated with antibiotics during the entire course of radiation therapy.

Generally, about 70% of males who were potent before treatment and who have not been treated with estrogens will maintain their potency if treated only with external radiation.

Summary of Possible Radiotherapy Indications

Stage A or I — Since Stage A or I adenocarcinomas of the prostate are found in elderly males, as an incidental finding during TUR and are usually low-grade with a low biological tumor potential, external irradiation is not indicated. Stage B or II — There are many treatment options available for treatment of this stage of tumor, and no definite answer is available at the present time. Radiation therapy is offered as an alternative to radical prostatectomy for suitable patients with the aim of cure. Several years may be required before it is found whether or not any improved survival is or is not outweighed by the morbidity of treatment. Stage C or III — These patients

are no longer curable by surgical means, and the two main treatment options with this stage of tumor are hormonal manipulation or external irradiation. With this stage of tumor, probably extended irradiation should be used with the aim of cure. Hormonal therapy is another option, but has the drawbacks of feminization and eventual treatment failure. Hormonal therapy is not a curative modality. Stage D or IV — Here radiotherapy has a quite obvious indication for the palliation of metastatic disease. It is well to keep in mind that many of these patients may survive for extended periods of time. Therefore, the external irradiation treatment should be properly fractionated so that treatment morbidity does not arise during the lifetime of the patient. Hormone therapy is also excellent for palliation in Stage D disease, and certainly improves the quality of survival.

One final point is that if patients are started on estrogens, a short course of irradiation to the breast tissue will prevent painful and embarrassing gynecomastia but only if given before any estrogen is started.¹⁶

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Sexuality in Later Life

THE function of sex has two distinct purposes — propagation of the species and the stimulation of the whole organism. Although the reproductive function of sexuality wanes with age, the stimulative function remains unaltered. When these two functions are confused, as they often are, misconceptions and anxiety may follow. Anxiety, in turn, may result in loss of sexual power and physical fitness.

Presently, our western society is much preoccupied with the fullness of adolescence and young adult life. Implicit in this preoccupation is the message that the possession of sexual energy and the pursuit of satisfactory sources for the release of that energy are strongly linked with youthfulness. The commonly held belief that sexual functions are built on romantic love and physical attraction between the sexes continues to exist. The implication is clear: sex in later life is less satisfying physically and consequently less satisfying psychically as well. The concept of romantic love, however, is not monopolized by the young since it is qualitatively timeless.² Furthermore, physical attraction is not the only ingredient necessary for sexual activity between two individuals. Aging being a continuous process, it is difficult to understand how one can find one's body distasteful and unattractive as one matures. Our perception of the opposite sex and of sexuality, therefore, does not undergo a substantial change as we have been led to believe by the mass media in their deification of youth.

Preoccupation with the belief that sexual activity is at a peak in youth leads to the subtle implication that there is an absence of sexual activity in old age. It is more reasonable to think that sexual activity decreases in frequency rather than intensity as one grows older. The frequency of sexual activity decreases for several reasons, some of which are: familiarity with the partner's physical attributes, boredom, distractions of family life, and preoccupation with one's responsibilities within and outside the home.

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It is unlikely that these would stimulate or maintain the aura of romance that youth often bring to their relationship. Only a massive effort to change these factors would rejuvenate the sexual life of an elderly couple. It is true that these changes may be more difficult to achieve in older people as they have developed over the years.

Sexuality in the elderly is not the invention of overenthusiastic sexologists. There has been an increased interest in the sexuality of the elderly in recent years. The Kinsey report in the 1950s,^{5,6} the Duke Longitudinal Study,⁸ and the physiological studies conducted by Masters and Johnson and other investigators in human sexuality⁷ have made significant impact in correcting the stereotype of sexuality in the aged. These studies have uniformly proven that men and women continue to enjoy sexual activity through their later years, even though aging does take a toll on their physical ability to have sexual intercourse. The ability to have rapid erection with a short refractory period, which is seen in young men, is delayed in old age. In women, estrogen production decreases at menopause which causes anatomical changes to the vagina and uterus. These changes may tend to make coital activity and orgasm painful, but this can be treated by taking small doses of estrogen regularly. Another conclusion drawn from these studies was that the incidence of sexual activity in the elderly is directly correlated to their sexual practices in youth and adult life.

Of the earliest findings from these studies, boredom in marriage was a major reason for discontinuing sexual activity between elderly persons. This boredom was attributed to repetition of the same sexual technique, lethargy, lack of interest in one of the mates, onset of obesity, and tendency towards slovenliness and unattractiveness.

As a substitute for the loss of attractiveness and vitality of earlier years, however, the elderly have the time to develop a deeper emotional understanding and to devise new methods of sexual technique with their partner. As a person ages, there is a progressive growth in mutual understanding which is consolidated by going through repeated crises which may enhance or destroy their relationship.⁹ Among the commoner crises may be menopause in the female and climacteric in the male, retirement, the discovery of a chronic illness in oneself or in one's partner. These may be seized upon as a convenient excuse by either or both partners to terminate sexual activity. Most chronic illnesses by themselves do not affect sexual interest and activity in the elderly.

There are a few physical illnesses which do have an effect on sexual activity. Diabetes in later life is sometimes associated with impotency and at times may be the presenting symptom in an elderly male. Arthritis, which may be severely incapacitating, may cause a temporary cessation of sexual activity. By reeducating a couple in the use of techniques for facilitating sexual activity, the problems originally precipitated by the disease can be overcome. Certain neurological diseases, which include multiple sclerosis, tabes dorsalis, sacral spinal cord tumors, may also cause impotency.

Follow-up studies of patients who have undergone prostatectomy have consistently shown that there is no evidence of impotence associated with the operation except in cases of severe damage to the genitourinary tract.^{1, 3, 4} As long as the autonomic nerve supply is not damaged, the prostate capsule is intact, and the smooth muscles surrounding the prostate are not disturbed, the elderly male will continue to experience orgasms. Retrograde ejaculation into the bladder due to a damaged sphincter at the neck of the bladder does not necessarily mean that a man cannot reach an orgasm. Ejaculation is not necessary to experience orgasm in the elderly. What is important is the contraction of the smooth musculature around the prostate and the prostatic urethra.

Care should be given in planning the diet for the elderly to avoid the negative nitrogen balance produced by a poor diet. This is common among the elderly and results from lack of knowledge, neglect, or poor financial circumstances which forces them to resort to a poor diet. The correction of this dietary deficit goes a long way toward bringing about a generalized feeling of well-being due to good health. Studies on longevity among the natives of the Andes in Equador, the Hunza in Kashmir, and the Abkhasians in the Soviet Union have shown that a frugal diet, exercise, and a generalized sense of well-being increases both longevity and their active sexual appetite through their non-agenarian years.

Anxiety, as already noted, is another important contributory factor to the termination of sexual activity in the elderly. The common misconception of the later years as being the sexless years generates a lot of anxiety in individuals who grew up believing these misconceptions. These individuals view advancing age with apprehension. Hence, their misconceptions become a self-fulfilling prophecy. Other individuals may look upon the continuation of their sexual interest and ability to enjoy sexual activity in later years with guilt, especially so since a proportion of their peers have retired from sexual relationship. They may discontinue sexual activity or continue with their practice (coitus or masturbation) with feelings of guilt.

A healthy attitude in the society as well as in the elderly is essential in helping to correct these misconceptions. A mere presentation of factual data will not correct the damage caused. These misconceptions are deeply rooted in emotions, and only in an atmosphere overcoming the emotional block will freer acceptance of ideas occur. This can be facilitated in educational or social groups for the elderly where their concerns, doubts, and anxieties, accumulated over the years for want of a suitable outlet, may be discussed. The knowledge acquired from these studies can be gainfully disseminated among the elderly and also among the young and middle-aged. This will help to not only rectify the misconceptions in society about sexuality in later life, but also to prevent

these misconcepts from becoming self-fulfilled when these younger individuals reach old age.

Sexual activity is but one aspect of the total personality and contributes to a deeper emotional understanding between two human beings. For a majority of elderly, sexuality plays a minor role, but in those individuals in whom it is suppressed, distorted or made unhealthy because of the negative attitudes fostered by society, sexuality continues to consume a disproportionate amount of emotional energy. With healthy expression, sexuality should assume a less important role.

What is applicable to sexuality during youth and middle age also applies in old age. Sexuality cannot be viewed as a separate entity, devoid of any feelings with the only objective of deriving relief of sexual tension, apart from the total interpersonal relationship with one's partner. It is one of the modes of relating in an intimate, affectionate

and a pleasurable manner with another human being. Sexuality is not an end, but continues to be a means of attaining satisfaction in later life.

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1975 Nebraska Maternal Mortality Review

THE M.C.H. Committee of your NMA yearly reviews deaths of patients in Nebraska who die during pregnancy, during labor or delivery, or during a three month period following delivery. The cooperation of the Bureau of Vital Statistics of the Nebraska State Health Department is greatly appreciated, and is essential to any review of this time. The inclusion of the single question, regarding pregnancy, on the death certificate, permits inquiry about patients who fit the criteria for maternal mortality review. Over the past several years, that maternal mortality has been studied, the voluntary cooperation of the physicians has been outstanding. Only through this cooperation could these reports be accomplished. Nebraska is fortunate in having legislation exempting such studies from subpoena or legal use. In addition, care is taken to maintain complete anonymity as to patient, physician and locale.

Mortality reviews are periodically published in the State Journal. They are also

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used as case reports in post-graduate courses and other teaching endeavors.

In 1975, thirteen death certificates indicated that the patient had been pregnant at the time of death or within three months of her death. A review of these cases showed that six deaths were direct obstetric deaths. One, and possibly two, were judged to be indirect obstetric deaths, and five were considered non-obstetric deaths.

The five non-obstetric deaths included one auto accident, one acute leukemia, one viral pneumonia, a chemical aspiration pneumonitis in a patient apparently on drugs, and one

patient with occlusion of the internal carotid artery, three months after delivery.

The two indirect obstetric deaths included a 32 year old, Para I, Gravida II who died in congestive heart failure, 10 hours after the delivery of premature twins; the second occurred in a 30 year old, diabetic who died in ketoacidosis within three months of a delivery, but no summary was received.

Of the direct obstetric deaths, there were two ruptured ectopic pregnancies, one who died without medical attention. One patient died of suppurative peritonitis, two weeks after Cesarean delivery, for non-progressive labor. One patient died five hours after delivery, of uncontrolled hemorrhage. The remaining two patients died in relation to hypertension episodes; one a frank eclamptic toxemia with intracranial hemorrhage and death; the other spiked blood pressure to 220/100 and died a cerebral death.

The time-honored triad of hemorrhage, toxemia and infection still looms as the leading cause of maternal death in our statistics and demands periodic review.

In reviewing the maternal deaths for 1975, many interesting observations are apparent. It was particularly impressive to note that five (5) of the patients were never married and two more were divorced. Three of the direct obstetric deaths were never married and one was divorced. Coupled with this observation, four, and possibly five patients, received no prenatal care; all but one of these falling in the group of direct obstetric deaths. In this day of the enlightened generation, there is an apparent deficiency in understanding, seeking and accepting the good medical facilities available.

A list of maternal deaths in 1975 follows. Six deaths judged direct obstetric; one, possibly two, indirect obstetric, and five or six, non-obstetric.

- 75 - 1 32 year old, Para I, Gravida II, who died 10 hours after 32 weeks, delivery of living twin infants — heart failure **INDIRECT OBSTETRIC**
- 75 - 2 20 year old, who died undelivered at 6 months pregnancy, with death certificate diagnosis of acute viral pneumonitis of 6 days duration and acute pulmonary edema. (No questionnaire received) **NON-OBSTETRIC**
- 75 - 3 30 year old, who died within 3 months of delivery with death certificate diagnosis of Ketoacidosis of one week duration in a diabetic of eight years duration. (No questionnaire received) **NON-OBSTETRIC - QUESTIONABLE**
- 75 - 4 29 year old, primagravida, who died 2 weeks after Cesarean Section, for non-progressive labor, of acute suppurative peritonitis and paralytic ileus. **DIRECT OBSTETRIC**
- 75 - 5 34 year old; ruptured ectopic — no summary. **DIRECT OBSTETRIC**
- 75 - 6 21 year old, who died of shock following automobile accident, with severed femoral artery; death certificate indicated pregnancy. (No questionnaire received) **NON-OBSTETRIC**
- 75 - 7 19 year old, **unmarried**, primagravida, who died of intracranial hemorrhage as a result of eclamptic toxemia in 32nd week of pregnancy. **DIRECT OBSTETRIC**
- 75 - 8 22 year old, **unmarried**, primagravida, who died 36 hours after Cesarean Section. Hypertension with suggested disseminated intravascular coagulopathy and hyperthermia. **DIRECT OBSTETRIC**
- 75 - 9 26 year old, who died, unattended, with ruptured tubal pregnancy. **DIRECT OBSTETRIC**
- 75 - 10 18 year old, **unmarried**, primagravida, who died 5 hours after stimulated labor and delivery, with post-partum hemorrhage; autopsy diagnosis — amniotic fluid emboli. **DIRECT OBSTETRIC**
- 75 - 11 34 year old, Para V, Gravida V, who died 3 months after the uneventful delivery of her 5th child. Clinical course and findings revealed occlusion of left carotid artery. **NON-OBSTETRIC**
- 75 - 12 19 year old, **unmarried**, female, who died from chemical viral pneumonitis, after aspiration of gastric contents; death certificate indicates drug usage and pregnancy. (No questionnaire received) **NON-OBSTETRIC**
- 75 - 13 20 year old, **single** female, who died of cerebral hemorrhage as a complication of acute myelocytic leukemia; death certificate indicates pregnancy. (No questionnaire received) **NON-OBSTETRIC**

Vasectomy: A Review of Psychological and Physical Side Effects

PART I

WITH the growing popularity and public demand for safer, more efficient means of contraception, there has been an increased interest in elective vasectomy. Only in the last two decades has the finality of vasectomy become socially acceptable or appreciated as an effective means of birth control.

The first human vasectomy was performed by Reginald Harrison in 1893. The procedure was relegated to the fringes of medicine and proposed for mostly fallacious beliefs. Some of the indications for vasectomy were as a method of castration of criminals, sterilization of the unfit, and even as a cure for masturbation; it also gained support in the eugenics movement with the goal of reducing the welfare rolls. Practiced by the Nazis in Germany and legalized in other European countries under various sterilization acts, involuntary sterilization was sanctioned in this country by the U.S. Supreme Court in 1927. However, it had become a widespread practice prior to that time.

"By 1939 sterilization had been recommended for leprosy, tuberculosis, epilepsy, alcoholism, insanity, sexual deviation, moral turpitude problems, mental deficiency, criminal behavior, Huntington's chorea, hereditary deafness, blindness, severe physical deformity, pauperism, neurasthenia, syphilis, rape, drug taking, carnal knowledge and ultimately, even chicken stealing."¹ Within the last two decades the indications for vasectomy have shifted markedly.

In 1967, an estimated 45,000 vasectomies were being performed per year.³ By 1970, according to the National Fertility Survey, one of seven men in the U.S. whose wives were between the ages of 30 and 44 years had undergone vasectomy. In 1971 alone, there were a reported 750,000 performed.²⁰

One study of 5,183 vasectomy patients reported that the mean age at vasectomy was 34 years with the youngest being 21 and

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and

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the oldest 72 (he reportedly feared paternity charges!). The average number of children per family was 2.4.¹⁵

Ferber, Tietze, and Lewit in one of the classical and often quoted studies have found that over half of their subjects were between the ages of 35 and 44 and married for more than 10 years. Most had three or more children, and were white. Religious preferences included the following: more than half reported themselves as Protestants, next was Catholic, then Jewish, with the remaining listed as other faiths or no religion. One half were high school graduates and one third had one year of college. There was an increased number of men in professional managerial and technical occupations, and very few from unskilled labor. One consistent factor among all the observed categories was an increased number of children when compared to census data. (3.9 children per couple compared with 2.3 per couple in the general population). This supports the postulation of less success in the use of alternate birth control methods.³

A more recent report on Latin-American vasectomized men⁶ shows similar results as far as mean age (37.8 years) and length of marriage (69.4% married to present wife for 10 years or more). However, this report indicated that the Latin-American men had more children by the time of operation (mean of 5.7 living children), less education, (75% grade school, 21% secondary school, and 11% with university education), and have a markedly high Roman Catholic population (77.5%). These differences may be cultural, since comparable general population data is lacking.

Why are men motivated to have

vasectomies, and what are the doubts they express? Many are distrustful of other contraceptive methods. Some men are motivated by the removal of fear of pregnancy with improved enjoyment by the wife. Some factors that influence the decision of the men to have a vasectomy instead of his wife's having a tubal ligation are: 1) it involves abdominal surgery for her, 2) less family disruption, 3) expense is less, 4) M.D.s are more willing to perform vasectomies.

Doubts, when expressed by patients include: concerns about psychosexual status such as, "I would feel less of a man"; or "it would make me impotent or curb my sexual desire"; religious scruples; projection of feelings of insecurity onto the wife, such as, "my wife might leave me because I can no longer produce children"; and worries of a childless future in the event of death of the partner, the existing children or remarriage.

Great attention has been given to studies involving premorbid personalities and psychological profiles of a man who seeks a vasectomy and how his self-image is affected by the procedure. These studies have gained many interesting insights into the resultant final effect on personal satisfaction, spouse reaction, changes in living patterns and the psychological readjustments within the marriage.

One of the most interesting and paradoxical findings in various studies is that while the patients have almost universal satisfaction with the operation, they report adverse psychological readjustments with the marriage.^{2,3,4} Ziegler et al⁴ have compiled the most complete longitudinal study to date, having done preoperative and postoperative study which consisted of the Minnesota Multiphasic Personality Inventory (MMPI), a personal interview, and a short questionnaire. All were completed prior to operation and again at a 12-15 month interval postoperatively. Almost universal approval was given for the anatomical and physiological result of insuring effective contraception and relieving concern about future pregnancies. However, a demonstrable adverse psychological effect within the marriage was noted — even though the patients stated they were overwhelmingly in favor of

the procedure and would make the same decision again. Adverse marital effects occurred in the three areas: 1) overall marital satisfaction, 2) psychiatric symptomatology, and 3) sexual adjustment. These three items are rank ordered by frequency. Wives were also noted to show as much or more adverse feelings as their husbands, thus affecting the marital satisfaction of both partners. It is important to note that there was no widespread psychological deterioration or evidence of overt psychopathology, but consistent changes were present.

Many couples found that the preoperative interview reduced or eliminated confusion of expected results and myths about the possible results of vasectomy. Most patients were educationally bankrupt before the first interview. Many also felt that discussion of the operation and its emotional and interpersonal aspects led to a better understanding and communication with their partner afterwards.

The research interviewers involved in one study⁴ were impressed by the regularity with which subjects focused on the positive results of vasectomy and tended to ignore the unfavorable aspects. The patients failed to make any connection between adverse life changes and the operation. They have inferred that the subjects have too much of a personal investment in their marriage to attribute adverse situations to the operation. There does appear to be an associated change in self-image and increased defensiveness noted in the patients. This is presumable on the basis that vasectomy is perceived by most men consciously or unconsciously as a form of castration and poses a challenge to a man's masculine identity. Explanations include: 1) Oedipal conflicts, 2) resurrected infantile fears of genital mutilation (castration anxiety), and 3) man's reluctance to relinquish the ability to procreate. The authors felt that subjects became sensitized to masculine versus unmasculine aspects of behavior. Thus any behavior interpreted as unmasculine may heighten anxiety and will more likely be omitted from the husband's future repertoire of responses. The result of this was a narrowing of his range of behavior, decreased flexibility, and a clear reduction in

feminine interests. Behavior which is sex stereotyped such as dishwashing or cleaning the house would not even get a second look by the husband. Meanwhile there was an associated increase in preoccupation with masculine behavior such as assertion of authority, occupational status, income, and recognition for occupation and professional efforts.

Vocational successes or failure would frequently be chosen as the course for any deterioration in personal or marital accord, rather than the opposite. This supports the assumption that there is too much of a personal commitment to allow self-doubt. Thus, the men tend to screen out unmasculine connotations with concomitant exaggeration of male roles. This leads to a decreased flexibility on the part of the husband which causes a shift in the marital

equilibrium. Finally, vasectomized husbands are more vulnerable to typical husband-wife rivalries than they were preoperatively. More longitudinal studies will be required to assess these observations and the perspective of time will be needed to assess the full impact of women's liberation on vasectomies. With the current emphasis on birth control it is probable there will be a change in societal attitudes and possibly less deleterious marital effects will result from vasectomy in the future.

So far this paper has concentrated on the negative aspects of vasectomy. It must be kept in mind that the prevailing attitude by vasectomy patients themselves is overall satisfaction and improvement in their marriage — in spite of the findings on the MMPI and by the personal interviews of Ziegler and coworkers. The negative findings are objective, not subjective.

Rehabilitation Following Acute Myocardial Infarction

SINCE the advent of coronary care units in the early 1960s, a significant reduction in the hospital mortality of acute myocardial infarction has prompted considerable interest in cardiac rehabilitation programs aimed at restoration of optimum physical, emotional, social, and vocational status. Undoubtedly, physical activity has an important role in the total rehabilitative effort, which also includes adequate medical evaluation and appropriate treatment, assessment of work and functional capacity, vocational counseling and modification of coronary risk factors, namely, emotional stress, abnormal blood lipids, hypertension, smoking, diabetes, and obesity.

Goals of cardiac rehabilitation:

The goals of a cardiac rehabilitation program include the following:

- 1) Return to work; or enjoyable full retirement; or self-care.
- 2) Reduction of the economic burden on the patient, his family, and his community

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through a shortened hospital stay, shorter convalescence, and early return to work.

- 3) Reduction of risk of recurrent myocardial infarction, premature death, or the complications of recurrent myocardial infarction, by the implementation of a secondary prevention program;
- 4) Improvement of the quality of life.

Mechanisms by which physical activity may affect the occurrence or severity of coronary heart disease:

It has been suggested by various investigators that the occurrence of or the severity of the manifestations of coronary

heart disease may be reduced by habitual physical training through numerous mechanisms.¹ Habitual physical training may increase: 1) myocardial efficiency, 2) efficiency of peripheral blood distribution and return, 3) electron transport capacity, 4) fibrinolytic capability, 5) arterial oxygen content, 6) red blood cell mass and blood volume, 7) thyroid function, 8) growth hormone production, 9) tolerance to stress, 10) prudent living habits, 11) the enjoyment of living.

Contrariwise, physical activity may decrease: 1) serum lipid levels, including triglycerides and cholesterol, 2) glucose intolerance, 3) obesity, 4) platelet stickiness, 5) arterial blood pressure, 6) heart rate, 7) vulnerability to dysrhythmias, 8) neuro-hormonal overreaction, 9) strain associated with psychic stress.

Phases of cardiac rehabilitation:

An effective physical rehabilitation program should begin, in suitable candidates, on the day of admission to the coronary care unit and continue through the convalescent and recovery - maintenance phases.

complicated myocardial infarction has resulted in a decrease in the number of hospital days to the point where many patients may be safely discharged after only 2 weeks of hospitalization, affording major economic advantages. Furthermore, psychological gains, improved cardiac function, and earlier return to work have been noted.

The deleterious effects of prolonged bed rest and inactivity in patients with acute myocardial infarction are now well known.² They include: 1) increased incidence of deep vein thrombosis and pulmonary embolism, 2) orthostatic hypotension, 3) progressive increase in heart rate (a major determinant of myocardial oxygen consumption), 4) reduction in circulating blood volume with associated increase in viscosity, 5) decreased muscle strength with subsequent decrease in physical work capacity, 6) impairment of pulmonary function as a result of reduced total lung volume and vital capacity, 7) decreased serum protein concentration, 8) negative nitrogen and calcium balance. Psychological events such as acute anxiety, depression, chronic neurosis, and withdrawal have also been observed in patients with

TABLE I PHASES OF CARDIAC REHABILITATION

PHASE	DESCRIPTION	AVERAGE INTERVAL IN DAYS OR WEEKS	LOCATION
I	Acute Illness	1-5 Days	ICU or ICCU
II	Acute Illness	6-21 days or remainder of hospital stay	IMC or General Floor
III	Convalescence	Up to end of 8th week	Home
IV	Recovery-Maintenance	After 8th Week	Return to work or previous activity

ICU: Intensive Care Unit

ICCU: Intensive Coronary Care Unit

IMC: Intermediate Cardiac Care Unit

It is recognized that this constitutes a drastic departure from the time-honored practice of prolonged bed rest and marked restriction of activity. However, several authorities, particularly Wenger et al² have demonstrated its safety, advantages and potential for further benefits. For instance, early ambulation in patients with un-

prolonged inactivity following an acute myocardial infarction.

Early ambulation does not result in excessive effort or risk for the post myocardial infarction patient. For instance, sitting requires only a minimal increase in energy over supine rest. It is also of interest to note that more energy is expended in

using a bedpan than in using a bedside commode.

Candidates for cardiac rehabilitation program:

Patients suffering a fresh or recent uncomplicated myocardial infarction regardless of age or sex, should be considered for cardiac rehabilitation.

Contraindications:

Relative contraindications to physical rehabilitation include: 1) uncontrolled hypertension, 2) uncontrolled diabetes mellitus; 3) thrombophlebitis, 4) severe orthopedic or musculoskeletal problems, 5) severe organic brain syndrome, 6) incapacitating central nervous system disorders, 7) fixed-rate pacemakers, 8) hypokalemia, 9) manifestations of digitalis or antiarrhythmic drug toxicity.

The development of one or more of the following complications of acute myocardial infarction constitutes an absolute contraindication to initiating a cardiac rehabilitation program: 1) congestive heart failure, 2) shock, 3) intractable or recurrent chest pain, 4) persistent or uncontrolled arrhythmias, 5) recent pulmonary or systemic embolus, 6) a high degree of AV block with or without a temporary transvenous pacemaker in place, 7) symptoms at rest. However, physical rehabilitation may begin several days after complications have been successfully treated.³

Indications for discontinuing program:

The occurrence of any of the following adverse responses to exercise indicates that such activity is excessively dangerous for the patient and constitutes an indication for immediate cessation of physical activity, evaluation of clinical status and modification of the patient's rehabilitation program: 1) chest pain, dyspnea, fatigue, or weakness; 2) an increase in heart rate of more than 20 beats/minute from the baseline or more than 120 beats/minute, or a decrease of more than 10 beats/minute; 3) a fall in systolic blood pressure of more than 20 mm Hg with or without symptoms of postural hypotension, or a rise of more than 40 mm Hg; 4) significant arrhythmias or conduction disturbances, 5) an increase in ST segment

displacement or T wave abnormality on the monitor.

Physical activity after acute myocardial infarction:

A. Phases I and II [in-hospital phase]:

If the patient is stable, the program may begin within 24-48 hours of admission. The initial steps of the physical activity program are begun in the coronary care unit and consist primarily of health care activities and passive range of motion exercises. Progression to bedside chair rest and advancement to higher levels of activity must be approved by the attending physician or his designate physician. As a rule, the patient with an uncomplicated myocardial infarction should be able to sit in a bedside chair for 20-30 minutes, two to three times a day, beginning on the second day after admission. By the end of the first week he should manage complete self-care such as shaving, brushing, and cleansing, and begin ambulating, first in his room and then in the halls with assistance. Supervised physical activity⁴ should be performed several times each day unless a contraindication develops, and should be interspersed with periods of rest. Before discharge, he should be able to walk in the halls without symptoms at least three times a day for three days. If he remains totally free of complications, he may be discharged two weeks after admission.

B. Phase III [convalescence]:

It is extremely important that, prior to discharge, the patient and his family be educated regarding the types of physical activity which will be allowed upon returning home, and those which should be avoided. In general, he should not engage in isometric exercises, swimming, sudden and abrupt activities, travel, and exposure to extreme degrees of temperature. However, for the first 2 weeks following discharge from the hospital, the patient is allowed to continue at the last prescribed level of physical activity, which would ordinarily include walking slowly up one flight of stairs and down, if necessary. In fact, most usual household and complete self care activities are permitted. Women are allowed to do light housework, but should refrain from making beds, manually washing and hanging clothes, and scrubbing floors. Progressive activity con-

sists primarily of walking with gradual increases in distance and speed, beginning after the fourth or fifth week post-infarction. The average patient is expected to be able to walk 1 or 2 miles daily by the end of the sixth week, but he should be instructed to divide this activity into two or three periods rather than in a single walking session. Sexual activity may be resumed approximately six to eight weeks following an uncomplicated myocardial infarction.

The development of angina pectoris during the convalescent period should prompt the patient to consult his physician for further evaluation, if needed. He should be instructed in the use of sublingual nitroglycerin, both for treatment and prophylaxis of angina. Use of nitroglycerin before an activity which predictably produces angina will usually eliminate or reduce symptoms and enhance effort tolerance. It is important to prescribe a dosage small enough to eliminate side effects and still maintain therapeutic action, since excessive nitroglycerin may produce severe headaches, resulting in patient aversion to the drug.

C. Phase IV [recovery-maintenance]:

The recovery-maintenance phase of a cardiac rehabilitation program must be conducted by well qualified physical therapists in this field. It is likewise imperative that a physician knowledgeable in emergency cardiopulmonary resuscitative measures be present during the sessions, and that emergency equipment, including a portable defibrillator with monitoring capabilities, be available. Fortunately, exertional cardiac arrest during supervised training is rare, occurring in approximately one in 5,000 or more man-hours of training activities (Pyfer and Frederick: unpublished observations, 1973). The purpose of this phase is to further enhance function and to maintain it at an optimum level to allow the desired occupational and leisure activities. A carefully performed treadmill exercise test is mandatory prior to the beginning of this phase. This is necessary both for safety and for accuracy of exercise prescription. For medicolegal reasons, an informed consent should be signed before beginning this phase. As a rule, in order to obtain a training effect from exercise, it is necessary to exercise

from 20 to 40 minutes at a time, at least three times a week.³ The patient should monitor his pulse frequently during physical activity. The desired pulse rate, or target heart rate, is about 70-80% of the highest heart rate safely achieved on the treadmill exercise test. A less acceptable, but often used, alternative, is a maximum heart rate of 30 beats/minute below that at which the patient's exercise capacity becomes limited. Most authorities recommend a preliminary warm-up period prior to strenuous exertion, and a gradual "cool-down" with only moderate activity, such as walking slowly, at the end of each training session.

The type of physical activity permitted in a cardiac rehabilitation program is important. Isometric or static exercises are extremely dangerous for an individual with cardiac impairment because of the marked rise in blood pressure and reflex cardiac slowing. In addition, exercises involving short bursts of intense activity are similarly hazardous. The types of exercises safely prescribed for patients with coronary heart disease are those which are likely to improve exercise capacity and reduce myocardial oxygen consumption for a given work load. These are called dynamic or rhythmic exercises, and consist of repetitive movements that require either maximal or submaximal effort, such as calisthenics, sequences of running and walking, and recreational activities such as swimming, volleyball, or bicycling.⁵ The patient must understand that, in order to maintain the "training effect" and enhance cardiovascular fitness, habitual physical activities must be incorporated into his daily life routine and continued indefinitely.

To summarize, a cardiac rehabilitation program includes supervised physical activity that is rational, safe and beneficial. Essential to any program is careful selection of candidates as well as close professional supervision and individualized activity. The deleterious effects of prolonged bed rest can thus be avoided. The goals of rehabilitation include shorter hospitalization, enhanced functional capacity, and earlier return to work. In suitable patients, cardiac rehabilitation begins in the coronary care unit and progresses through the remainder of the hospitalization, convalescent and recovery-maintenance periods.

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The Gold Rush Mania: Victims and Survivors

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PERHAPS it is not inappropriate to talk about history, for we are only a few miles from old Fort Kearny, one of the most historic places in western America, the true gateway to the Great Plains during the two decades before the completion of the Union Pacific Railroad.

By way of preamble let me confess that my relationship to doctors of medicine, as a patient, have been, thankfully, limited to three serious occasions, so far — first, my birth; secondly, in infancy a case of diphtheria which, the attending doctor advised my parents, would be fatal; thirdly, about 35 years later in Gering, Nebraska, the excision of my tonsils by a certain Dr. Bill Gentry.

There has been another kind of a relationship I have had with doctors, certain ones who have turned out to be fellow students of history. I will mention only two of them, both of Omaha — Dr. Esley Kirk, with whom I coedited the gold rush journal of his ancestor, Elijah Bryan Farnham; and Dr. John Christlieb, with whom I collaborated in organizing the Greater Omaha Historical Society. Of course in this category I must also mention Dr. Warren Bosley, your President, whose own enthusiasm for history was the governing factor in my appearance before you today.

In 1854 Nebraska became a Territory, with settlements and self-government, saloons and churches, teachers, store-keepers, lawyers,

doctors, and undertakers — though not necessarily in that order! Prior to that date it was wild and unorganized Indian territory, devoid of any of the above amenities with few exceptions. These exceptions were an Indian agency at Bellevue, a few scattered civilian posts licensed for trade with the Indians, and two military posts, Fort Atkinson on the Missouri, abandoned in 1827, and Fort Kearny on the Platte, established in 1848.

The last and biggest exception to Nebraska as savage wilderness was the covered wagon migration up the Platte River and its two main tributaries, floating communities en route to Oregon, Utah, California and Colorado. These pilgrims were going to Oregon to establish new homes, to Utah for religious freedom, and the other territories primarily for gold, to get rich quick. None of them paused for a moment to consider establishing homes in the treeless plains that were to become Nebraska and Wyoming; the only settlement in Nebraska for two decades after 1854 would be a strip along the Missouri River. Of these successive waves of migration flowing past Fort Kearny, the greatest of them all from the standpoint of numbers and feverish excitement was the California Gold Rush, and its climax occurred in 1849-1852. During this

four year period an estimated 150,000 souls crawled up the Platte toward the Promised Land, comprising over 40 percent of the 350,000 which I have calculated for the entire 25 year period of wagon migrations, 1841-1866.

The California Gold Rush was a form of hysteria which fed on itself, following the stunning news of gold at Sutter's Mill. The Argonauts, lured by tales of nuggets laying on the ground as thick as pine cones, once seized with the mania, transformed their possessions into wagons, teams of mules or oxen, assorted hardware, and enough grub to sustain them until they reached the open prairies where — they were told — buffalo could be slaughtered for meat, and where lush grass would fatten their draft animals. This was hysteria, not only because it had all the elements of a stampede, but also because the promise of riches bore no relationship to reality. Furthermore, the 2,000 miles to California was a trip through a desolate, treeless stretch of arid plains, mountains and outright desert, peopled only by aborigines of dubious disposition, truly a prospect out of Milton's Purgatory or Dante's Inferno.

At the jumping-off places, mainly St. Joe and Omaha, the emigrants normally organized themselves into companies, complete with charters, bylaws and officers, and most of them were solid farmers or townspeople, Christian believers who insisted on observing the Sabbath by not travelling on that holy day. With them they brought their Anglo-Saxon traditions of social justice and grass-roots democracy. At the outset the perils of the journey they had heard about — Indians, storms, starvation, or whatever, — they bravely scoffed at, lumping all of them in the dubious category of "the elephant," and they took pride in confiding in their journals how they were looking forward to "seeing the elephant," but they were not scared of him and would "spit in his eye." Before they reached Fort Kearny — and they all reached Fort Kearny because the trails from all of the great jumping-off places converged here — the pilgrims had enough jolting hardships to temper their optimism, and many of their number scurried back to the settlements. Although in 1849 and the early fifties Fort Kearny was nothing but a

miserable collection of sod and frame buildings, without semblance of fortification, it was joyfully greeted as an oasis, with the comforting sight of soldiers and a flag flying, and an opportunity to replenish supplies. West of Fort Kearny, however, the emigrants' trials and tribulations began with a vengeance, and the mythical elephant revealed himself in full fury. Before reaching Fort Laramie on the North Platte the number of turnarounds had multiplied in geometric ratio, while those who elected to push further westward realized that they were now in a running battle for survival.

Ironically, the thing the emigrants feared most — Indians — proved to be the least of their troubles. True, in 1742 the natives had massacred a number of Spanish explorers at the forks of the Platte. They had been known to scalp a few fur traders, and during the migration they sometimes ambushed stragglers, though more often merely to rob rather than kill. They were merely pests, beggars of food and trinkets. Sometimes they attempted to swap their precious guns or horses for a white woman, but there is no record of a white man, however unhappily married, taking advantage of one of these barbarous proposals. There is a tradition that one emigrant was skinned alive by Indians in retaliation for his abuse of a squaw, but such incidents, if true, were isolated. In 1864 the Sioux and Cheyenne did go on a rampage, kidnapping, murdering and pillaging along the Little Blue and the Platte valleys, but during the period we're talking about, 1849-1854, the Indians were quiescent and did little real damage.

The most damage of all to the emigrants, accident-wise, were self-inflicted gunshot wounds. Their arsenal of revolvers, shot-guns, rifles and assorted artillery, intended to hold the redskins at bay, actually wound up killing off hundreds of emigrants themselves through their carelessness in handling these lethal weapons. While cleaning their guns, or in random firing at skulking coyotes or fleeing buffalo, or at an imaginary Indian who turned out to be a fellow emigrant, or simply by the cavalier handling of guns innocent of safety devices, the emigrants managed to kill or maim

themselves or each other in alarming numbers.

The second principal cause of accidental death was drowning, at the river crossings. Today when we cruise along I-80 at speeds ranging from a legal 55 to a defiant 85 miles per hour, it is difficult for us to conceive of travelling by wagon train at an average speed of two or three miles per hour, taking 4 to 5 months to reach California when we can get there now in a few hours by jet plane. An equally difficult feat of imagination is to put ourselves in an ox-drawn wagon at a river crossing. A small stream with steep cut banks might not involve getting wet so much as lowering and raising your wagon and gear by ropes, a simple exercise in physics, but a respectable river like the Platte during the June rise, would be something else — no bridge, no ferry, and no Coast Guard. Your problem is to persuade the animals to descend the steep bank and plunge into the current, with quicksand, sandbars, and deep whirlpools alternating. You shout and whip the animals to keep them moving, to avoid overturning the wagon with all your worldly goods and your terrified family. With luck and the help of friends to manage the panicky oxen, you will probably make it. If your luck runs out the wagon will capsize and somebody will go under. There are hundreds of unmarked graves of river victims between North Platte and Julesburg, on both sides of the Platte. Hundreds of others disappeared forever downstream amid the shrieks and lamentations of their loved ones.

The third most serious category of accidental death enroute across Nebraska was that related to the wagon train operation itself, getting thrown, knocked down and sometimes run over by the big iron-rimmed wagon wheels, fractious mules, or nervous oxen. A little girl perched on a wagon box falls to her death when her father whips the team to a lurching start. A boy is kicked by a mule, sustaining a broken leg and a skull fracture. Thunder and lightning stampede the animals and a man dies or is broken under a rain of hooves, or is impaled on tossing horns.

Of course there was an assortment of other accidental hazards which took their toll

— sun stroke, frost bite, rattlesnake bite, choking dust, gravel like buck-shot in a violent wind, or getting caught in a hail-storm away from shelter. But there is one kind of threat to life and limb which was not accidental, that is, being assaulted on purpose by a fellow emigrant. Although robbery was the motive in some instances, the most common cause of covered wagon mayhem and murder was simply unleashed antagonism, small personal differences greatly magnified by the stress and strain of overland travel on the nervous system, sometimes compounded by alcohol. From the journals I have accounted for several dozen trailside homicides; since only one in 500 emigrants kept a journal, we may assume that there were several hundred more killings that were unreported. These most often resulted from the employment of guns or knives in grudge fights, although death by strangulation at the end of a rope was not uncommon. Such lynchings usually resulted from drumhead trials held with a minimum or ceremony prior to the execution of an alleged murderer or rapist. Self-defense was rarely an excuse, and there was no appeal and no stay. If there was no tree handy, two wagon tongues tied together and tilted upward would serve.

Of course I have not yet touched on the main cause of death on the Platte River Road, enroute to California. The champion killer of them all was as relentless as it was invisible. For every accident or homicide victim, ten were laid low by disease, tiny organisms not yet exposed by microscope or challenged by effective medicine. No records were kept and no one really knows how many died along the 2,000 mile route; my impression gleaned from hundred of journals is that during the 25 year period there may have been 20,000 out of my calculated 350,000, or a ratio of one in 17. Thus across the continent graves would average ten to a mile, but in western Nebraska the ratio would have been higher. From Fort Kearny to Fort Laramie, only one-fifth of the entire route, during the climax period 1849 to 1852 — only one-sixth of the overall migration time span — I would guess that there were at least 5,000 deaths.

Dr. Tompkins, an emigrant of 1850, attributed the widespread contagion to camp

food, "indigestible filth too crude even for the stomach of an ostrich, chilly night watches and sleeping on cold, wet ground, and the constant hard and exhausting toil. As early as 1846 an Oregon traveller said he was "unwell since coming upon the waters of the Nebraska, owing to mixed salts, glauber salts, alum and magnesia." Among other villains most often accused were boiled beans, rancid bacon, buffalo meat eaten right after a chase, lack of vegetables, and the all-pervasive lung-choking dust.

At this period vaccination, if known, was rarely practiced. The normal precaution was to take along a medicine chest with an assortment of trusted home remedies for everything from baldness to the Bubonic plague. Elizabeth Geer's inventory included, "a box of physicing pills, a box of castor oil, a quart of best rum, and a vial of peppermint essence." The latter ingredient, combined with a glass of brandy would, according to John King, cure most ills. Another emigrant lady's portable apothecary included quinine for malaria, hartshorn for snakebite, citric acid for scurvy and blueness, and opium and whiskey for everything else. Laudanum, morphine, calomel and tincture of camphor were other potent drugs mentioned in the journals which, doubtless, would do wonders for the symptoms if not for the malady!

If you were a consumptive — presumably one sporting symptoms of TB — your fate offered no middle ground: either you died before you reached the Platte or your stroll across the continent was so invigorating that you recovered and reached California in mint condition. Among other identifiable afflictions were whooping cough, measles, mumps, smallpox, and malaria, usually called "fever and ague." So-called "lung fever" was presumably another name for pneumonia. "Bilious complaint," "summer complaint," and "mountain fever" were evidently pseudonyms for diarrhea, the commonplace result of primitive hygiene and drinking the turbid waters of the Platte River, or the water from shallow wells dug along its margin.

Other routine complaints included rheumatism and toothache, the latter sometimes relieved by opium or amateur extractions. We encounter reports also of exotic illnesses,

like delirium tremens, hydrophobia, bloody flux, and vertigo. But all of these ailments pale into insignificance beside the Asiatic cholera which raged along the Platte River Road during the climax years of the Gold Rush. Brought to the seaport of New Orleans by ship rats, the epidemic arrived at the jumping-off places via Mississippi and Missouri River steamboats. It was the great killer of emigrants; in the estimate of one journalist, "the Gold Rush caused more bereaved than the late Mexican War." Most cholera deaths occurred between the Missouri River and Fort Laramie. Writes another of the 1849 exodus, "The road from Independence to Fort Laramie is a graveyard." That year some large trains lost two-thirds of their number. There are instances of children orphaned or entire families wiped out, leaving their prairie schooners adrift like derelict ships on the ocean. The scourge was repeated in 1850 and 1852. J. H. Clark, in the latter year, "passed camps every day waiting for someone to die.

In 1849 and 1850 the plague was evidently confined to the south side of the Platte — the main California Road — and many escaped it by making early crossings. In 1852, however, it jumped to the north side; Ezra Meeker, who started from Omaha, found the north side healthful enough until opposite Fort Kearny. Here, he writes, "the epidemic struck our moving column where the throngs from the south side began crossing." From that point on, Meeker continues, it looked like a battlefield, with the dead laid out in rows.

Several curious facts emerge from the journals about the Great Destroyer of the Argonauts. Though sometimes orphaned, children themselves seemed to be relatively immune. West of Fort Laramie the sickness abated, possibly due to increasing aridity and higher altitude. In 1852 George Hearst — incidentally, one who did strike it rich — claimed that "the cholera was worse while it was raining." A Dr. Caldwell, who later himself died from the disease, thought that cholera was greater *after* a spell of wet weather. Though diarrhea was sometimes a harbinger, the cholera often struck suddenly and without preamble; often the victim was dead within hours. But not all cases were

fatal; a high recovery rate was claimed for some trains. An illuminating account of cholera symptoms and treatment is given in 1850 by a Dr. Lord of New York, but on this pleasant occasion I will refrain from quoting the distressingly lurid details.

A respectable number of medical doctors joined the gold rush. Many large trains made a point of having a doctor or surgeon along, and many of these kept journals. My favorite gold rush doctor, next to the good Dr. Lord, is Reuben Knox of North Carolina, also of the 1850 migration, who not only kept a meticulous diary, but was a veritable saint in his tireless efforts to relieve the afflicted, but I have identified at least a dozen others. Most, like Knox, performed heroically; some, like Dr. Caldwell, succumbed themselves. Most were available to assist victims in other wagon trains. Some, in the universal crisis, declined payment, though William Frush reports a Dr. Brown who was all business and charged \$2 in hard cash to treat cholera, with no guaranteed results. I suppose this would be the equivalent of about \$100 of today's soft money. Two lady emigrants complained about a practice they deemed unethical, physicians painting signs on rocks or gravestones to advertise their services. Evidently for them the Gold Rush began before reaching California.

For the deceased funeral services, if any, were a matter of chance. If you were fortunate enough to die during the first few weeks out there might be trees available to construct a coffin, and the observances would be well attended, with all the ceremonial trimmings. However, as the migration moved along the Platte, and emigrants began to die in wholesale lots, the spirit of gloom gave way to panic with the realization that laggard trains might freeze to death, like the Donner Party did, in the Sierra Nevadas. So burials and services came to be performed perfunctorily, sometimes with indecent haste. Sometimes a company would encamp waiting for a stricken member to die; more often he or she would be carried along in a wagon, suffering with every jolt, "gradually yielding to the embrace of the monster," to quote Niles Searls. When death seemed imminent, some trains left so-called "watchers" to wait for the end and provide

burial; others simply abandoned hopeless cases along the roadside. Emigrants Abbott and Cooke cite cases of men digging graves within sight of a dying companion, while Elisha Brooks claims that "some were buried before life was extinct." Thus the emigration tended to become a numbing process of dehumanization.

While isolated graves were the rule, some describe places with 12 or 15 graves in a row; Ezra Meeker counted 57 at one campground alone. Some journalists paused to copy the inscriptions on headboards and tombstones; thus we are able to identify hundreds of the deceased. Graves became the highway markers of the Great Platte River Road.

Grandma Keyes of the 1846 migration expected to die enroute so brought along a coffin which was utilized at the crossing of the Little Blue. Most others gambled that they would make it all the way; if they didn't the burial method was a problem. Out on the Plains a rude box might be made by pirating from tail gates or packing boxes, but this source was soon depleted, and the departed was fortunate if he was wrapped in so much as a blanket. What with the big hurry and a shortage of spades along the Platte, the deceased was likely to be buried not only without coffin and without ceremony, but in sand so shallow that it could scarcely be called a grave. The results were predictable. The burials, such as they were, were promptly invaded by wolves and coyotes, who displayed scant respect for the mortal remains. So prevalent were they that one emigrant reports the disruption of a funeral service by converging coyotes, howling dismally, and impatiently waiting for the train to move on. Efforts to protect the dear departed with rock slabs, when available, proved of little avail. The ravenous prairie creatures were adept at digging tunnels if necessary.

Under the impression that Indians also robbed graves, efforts were sometimes made to conceal them rather than mark them, by driving back and forth over the spot, and replacing vegetation. When this ruse succeeded the deceased was preserved, of course, but his last resting place was forever lost to posterity unless later plowed up by

Nebraska farmers or highway construction crews.

In 1949 Captain Stansbury found one marked grave which, "instead of containing the mortal remains of a human being, had been a safe receptacle for divers casks of brandy." J. G. Bruff understood also that some emigrants dug "semblances of graves, which were actually caches of goods" for future reference.

With some graves too shallow, some destroyed by animals, some deliberately concealed, and some faked, it is a wonder that any identifiable emigrant graves survive. Only a few do, and these few mainly in uncultivated land in western Nebraska, in the vicinity of the North Platte Valley landmarks.

Lest this recital seem unduly morbid I would like to end on a cheerful note. Consider that if one out of 17 emigrants died, and maybe 10 percent of all who started changed their minds and returned home, then at least 85 percent made it to their destination, a fair survival rate.

The cholera was a sometime thing, which skipped around like lightning, and as suddenly would disappear. Most emigrants were tough-minded as they were hard-muscled. At Chimney Rock one wrote of his company that, despite their afflictions, "we were a jolly crowd and laughed heartily at each others experiences." The biggest ally of morale perhaps was good health, often improved by the rugged outdoor life. Many discovered new horizons within themselves,

and offered testimonials to the benefit of exhausting toil, as a sure cure for dyspepsia or insomnia. If there was grief, there could also be the exhilaration of high animal spirits, which expressed itself vividly in the ability of the emigrants to entertain themselves or to celebrate despite fatigue. Dancing and merry-making around campfires are recorded, as well as more sombre occasions. The Fourth of July, which for most emigrants occurred between Chimney Rock and South Pass, was almost certain to produce joyous patriotic festivity — oratory, marching, feasting and — if any whiskey was left after extensive use for medicinal purposes — drinking patriotic toasts until, as one journalist confided, "all hands got gentlemanly tite," climaxing their observances by rolling a wagon off the top of a high bluff.

Another positive force, perhaps equal in importance to good health, and certainly as potent for some as medicinal spirits, was religion. The great majority of emigrants were devout Bible-readers and Sabbath-observers. Who can deny that their simple Christian faith played a powerful role in sustaining them during their long ordeal? Or that a revival of that same faith today might help us to conquer new and frightening frontiers the covered wagon emigrants never dreamed of?

Consider that it was this healthy majority of gold rush emigrants, plus those who went by sea around Cape Horn, who became the first to settle the Far West. Their gold fever was transmuted into the energy and the vision that spanned the continent and laid the foundations of modern America.

Recurrent Abdominal Pain

ANY physician involved in the routine care of children must soon become impressed by the number of children who have recurrent abdominal pain as a major symptom. A child is said to have the syndrome of recurrent abdominal pain if at least three attacks of pain severe enough to affect activity have occurred over a period longer than three months. The frequency of this syndrome was emphasized by a survey which found one in nine unselected school children to be so affected. The number of cases further compounds the already difficult problem of diagnosis and treatment of any individual case of recurrent abdominal pain. Frequently coping with a physical illness of emotional origin is not an easy task for most physicians trained in diagnosis and treatment of organic disease. Indeed, the problem of recurrent abdominal pain in childhood can be one of the more formidable challenges for the physician.

Except for the rare child with an underlying organic cause, recurrent abdominal pain usually signifies a disorder of the whole child and probably the family as well. The clinical features may be variable from one patient to the other and occasionally from one episode to the next, even in the same child. Consequently, the physician must exercise particular caution while considering each episode of pain, especially if the rare organic etiology is to be recognized.

The etiology of this syndrome is not completely understood. The concept that psychogenic factors are triggering events in the production of the pain is generally accepted. However, it is not clear whether this reflects either a genetic and/or an acquired susceptibility in the child. Though the gastrointestinal tract seems to be the target organ, receiving the brunt of emotional input, a generalized disturbance of the autonomic system may exist. Many children show an exaggerated response to stimulation with cholinergic drugs and may respond similarly to natural stress which evokes an autonomic response. The phenomenon of exaggerated responses (summation) to stress can be produced in dogs

A. SILVERMAN, M.D.

maintained by conditioning experiments which keep them in a high state of autonomic (hypothalamic) discharge. One wonders whether children with recurrent abdominal pain are similarly affected, tuned high by more or less constant autonomic discharges and then demonstrating an exaggerated response (abdominal pain) to additional stimulation. Complex interrelationships are known to exist between cortex-hypothalamus-preganglionic nerve cells, which are capable of producing pain via this pathway. Current pediatric literature has likened the clinical features of this entity to those functional gastrointestinal disorders of adults called the irritable colon syndrome.

Delayed intestinal transit has been implicated as etiologic (91% in one series) and leading to constipation. Distal colonic spasm ("cork in the rectum") has been suggested as directly responsible for the abdominal pain. The mechanism for this abnormality is also presumed to be under autonomic control.

Diagnostic Approach

There are no shortcuts for proper diagnosis of the syndrome of recurrent abdominal pain in childhood. The child and probably both parents should be seen in the office, with adequate time allotted for the obtainment of a thorough history and performance of a complete physical examination. As often happens, several interviews may be necessary before this entity can be properly diagnosed and treatment started.

Observations

During the history-taking, the physician will learn much about the child-parent relationship simply by observation. The social maturity for age of the child can be evaluated by this technique. Directing questions to the child provides information to the physician about verbal maturity. Parental confidence in the child can be assessed by noting who answers the questions

directed at the child. The parents are often surprised at the degree of awareness the child has to his environment, as well as to his fears and fantasies of his surroundings.

History-taking

This is undoubtedly the most important part of the interview, for the physical examination is seldom revealing of any abnormality.

Pain: The age at onset of the pain is usually between 5 and 10 years, with reasonable limits extending from 3 to 14 years. A slight male predominance has been noted. Characteristically, the pain is episodic, brief in duration, with periods of well-being interspersed. A smaller group of patients may have continuous mild abdominal discomfort with episodic exacerbations. The pain is usually cramp-like and colicky, lasting less than an hour. Rarely does the pain persist for more than three hours. Pain is primarily located in the periumbilical area, and the child will usually place his entire hand over the area. When instructed to use one finger and point to the pain, he typically demonstrates a searching motion with his finger, while outlining a circle around the umbilicus. The pain seldom radiates and generally recurs in the same location. The farther from the umbilicus the pain is, the more likely that an organic cause will be found responsible for the symptom.

Although the relationship with bowel habits, eating, and activity is at best tenuous, there are certain children in whom the pain occurs at mealtime, particularly the evening meal. The pain may continue shortly before bedtime, but seldom awakens the child once he has fallen asleep. It may resume again immediately upon arising and before breakfast. Occasionally, the pain starts before leaving for school, but it is equally common for it to start when returning home from school.

Of much greater importance than the pain itself is information temporally related to the onset of the pain. It is extremely common to find a definite precipitating and stressful situation in the child's life at about the time the original abdominal pains first began. Such things as serious illness in the child or parent, a death in the immediate family, loss

of friend or pets, change in environment by a move, or the starting of school should be specifically asked about by the physician. This information is seldom volunteered by the parent yet is frequently noted to be associated with the onset of symptoms.

Associated Symptoms: Related symptoms can be helpful in identifying the syndrome. Headache and pallor are noted during the time of abdominal pain in half the children. Dizziness, anorexia, vomiting, and constipation may be reported. Some fever may be documented but is not common. Diarrhea is much less a feature than in the irritable colon syndrome of adults.

Despite the duration and severity of the complaints, the child has seldom suffered in terms of growth or height, a very important bit of information.

Past History: Additional support for the proper diagnosis can be gained by inquiring into other areas. Discomforting morning sickness and difficult labors often characterize the pregnancy. Colic, poor eating habits, and frequent formula changes are frequently recalled when the neonatal history is obtained. Some combination of undue fears, sleep disturbances, night terrors, enuresis, and difficulties in school are surprisingly common in children with recurrent abdominal pain.

Review of Systems: Though generally unrewarding, particular attention should be given to the genitourinary system (frequency, dysuria, enuresis) and other gastrointestinal complaints (dyspepsia, food relief of pain, jaundice, constipation, etc.). Although rarely a factor, specific food allergies may be inquired about.

Family History: This part of the interview is most important and often provides solid information pertaining to the origin of the pain. A compulsive, detailed diagram of the family tree should include three generations. This technique permits specific questioning about the health of each individual person. One should ask specifically about the presence of functional gastrointestinal complaints and migraine headaches in the family members. Almost one half of the parents have a positive history. Chronic medical

problems are also common in the family constellation.

Personality and Emotional Makeup: A positive diagnosis is aided by the identification of definite psychological or emotional pathology. Certain personality traits seem to be particularly striking.

The largest group of children with recurrent abdominal pain are super-achievers and set for themselves very high standards. They tend to tolerate failure very poorly, going about their chores in an obsessive-compulsive manner. The parents frequently describe them as their best child in terms of aptitudes, behavior, and maturity. Consequently, they assume many responsibilities. They may not be particularly demonstrative, but long for affection. In school they are usually good students, and most are the teacher's pet.

Undue fears are especially common with great concern about parental health. Fears related to loss of love objects may be compounded by the chronic medical complaints in the immediate environment.

Criticism is usually tolerated quite poorly by this group of children because they interpret this as rejection. Overt anger is seldom seen, as they prefer to withdraw and pout.

A second major category of personality and emotional types is represented by those children who are average in intelligence but immature in speech and behavior. They suffer from repeated comparisons to a sibling who has been set as the acceptable standard by the parents. These parents commonly fail to appreciate the individuality of the child and set the same high standards for all their children. This particular child develops an anxiety reaction when he realizes he cannot fulfill the expectations of his parents or environment. Somatization of this anxiety manifests itself as recurrent abdominal pain. In addition, school difficulties, learning disabilities, and school phobias are not unusual.

Physical Findings

A thorough physical examination is essential and should be performed both between and during an attack, if possible.

One is struck by the well-being of the patient, for height and weight have not been affected by the illness.

Abdominal tenderness, when present, is vague and diffuse to deep palpation, but guarding is seldom encountered. The area of maximum tenderness seldom corresponds with the original location of the subjective pain. Generally speaking, more discomfort is elicited over the lower abdomen, especially in the area of the descending colon and sigmoid. The subjective symptoms of abdominal pain are severely discrepant to the objective findings.

Rectal examination often reveals small, pellet-like stool in the ampulla which is hematest negative.

Diagnosis

The diagnosis of recurrent abdominal pain of psychogenic origin should be made on positive findings. It should never be made solely by the exclusion of organic causes, which may entail an extraordinary amount of investigation.

The correct diagnosis of psychogenic pain can be made in most cases simply on the clinical history, recognition of the personality of the child, and family history, and the physical examinations.

Laboratory Findings

For the vast majority of patients a few simple laboratory tests can be performed during the initial office visit. A complete blood count, sedimentation rate, urinalysis, and stool for occult blood are sufficient to reassure the physician and parent that major organic disease does not exist. In the event that the pain symptoms are somewhat atypical, especially pertaining to the location of the pain, then several urine specimens and culture, including a freshly voided one during the pain episode, should be carefully examined for red blood cells.

The clinician may selectively order various radiologic studies, such as an upper GI and small bowel series and barium enema. The intravenous pyelogram and voiding cystogram may on occasion be abnormal, especially in those children with an atypical story. Radioisotope scans may occasionally be indicated. Sigmoidoscopy and panendo-

scopy are employed in atypical or unusual cases. Other laboratory studies should be obtained whenever the history or physical examination positively suggests a specific disease entity.

Differential Diagnosis

The number of possible causes for recurrent abdominal pain is staggering, but few are likely to escape detection after utilizing the approach outlined above.

The complaint of recurrent abdominal pain in children under five and over thirteen years of age should be viewed suspiciously, as an organic rather than psychogenic cause is likely to be present.

Genitourinary disease, especially in the pediatric age group, is the most frequent organic cause, which may masquerade with the symptom of recurrent abdominal pain. Repeat urine examinations and x-ray studies should make the diagnosis promptly.

Peptic disease in this age group can produce a symptom complex which mimics the entity in question. A positive family history and more localizing epigastric pain warrant an upper GI series. It should be recalled that this entity tends to be overdiagnosed by non-pediatric radiologists.

Chronic constipation can occasionally be responsible for the crampy-colicky pain episodes, and a therapeutic trial of stool softeners is warranted when such a history is obtained. Postprandial pain and tenderness over the left colon are more common in these children. Early in the course, chronic inflammatory bowel disease may start with colicky abdominal pain in the absence of other signs. Absence of anemia, a normal sedimentation rate, and proctoscopic exam are reassuring.

Chronic recurrent bouts of intussusception may be difficult to rule out without a barium enema. In our experience, the pain is more severe, and at the height of an episode there may be abdominal distension and a palpable mass. A Meckel's diverticulum may rarely be a source of pain. Intermittent volvulus associated with malrotation has also been reported as a cause for recurrent abdominal pain. The pain tends to occur one to two hours following meals. The barium enema reveals an abnormally located cecum.

It is important to remember that chronic appendicitis and mesenteric lymphadenitis are highly unlikely causes of recurrent abdominal pain. Recently, however, a syndrome labeled pseudo-appendicitis has been described. It is associated with a striking degree of lymphoid hyperplasia of the terminal ileum and may have a bacterial or a viral etiology. The relationship between this syndrome and recurrent abdominal pain of psychogenic origin is unknown; however, it is remarkable that a certain number of cases of recurrent abdominal pain start following a febrile illness.

Pinworms are probably never responsible for chronic abdominal pain. Taeniasis, ascariasis, and giardiasis may give rise to symptoms and can easily be looked for in fresh stool specimens.

Abdominal epilepsy is usually part of a syndrome altogether different from the clinical description given above. Chronic lead poisoning can be recognized by anemia and the presence of basophilic stippling with the red cells. Urine studies for corproporphyrins and blood lead levels may be necessary.

Chronic fibrosing pancreatitis may present as recurrent abdominal pain. However, the features of the pain (location and duration) and abnormal laboratory tests (high white blood count and elevated serum amylase) should make for easy diagnosis.

Treatment and Prognosis

The treatment for the entity of recurrent abdominal pain of psychogenic origin should begin at the initial contact with patient and parents. The anxiety of the parents and child is often relieved by the thoroughness of the history, the physical examination, and by appropriate exploration of emotional factors leading to somatization. Guidance is then offered by the modification of harmful stresses which have been elucidated in the child's environment. Drug therapy is, at best, symptom-oriented and tends to mask the underlying cause.

Some physicians can provide the proper support and counseling for child and parent. Others will require the aid of social workers, psychologists, or psychiatrists, depending upon the severity of psychopathology and availability of professional help. Just as the

diagnosis should always be made on firm, positive grounds, so should be the approach and direct of therapy. Untreated, two-thirds of the "little bellyachers" are said to become "big bellyachers." They frequently develop other functional somatic complaints and, as adults, enter into poor marriages. With proper support and treatment the majority of children do quite well, with diminishing numbers of pain episodes.

As recommended recently, each attack which is not quite like the previous one should be considered as a separate entity. What may be psychic pain on one occasion may on the next be caused by an inflamed appendix.

Although not recommended as a routine maneuver, hospitalization may serve as a diagnostic aid. Pain symptoms generally disappear within 48 hours and seldom recur in the hospital. Indirectly, much can be learned about the psychodynamics of the home environment by observations of the child's adjustment to the hospital ward and personnel.

The prognosis is worse for male children having pain for greater than six months, especially if the onset was before five years of age and the family history is positive for functional complaints.

Down Memory Lane

1. You will be surprised when I tell you that the two men who operated on King Edward for appendicitis did not believe in antisepsis.

2. I made a fatal error once in differentiating between gallstone colic and a perforating duodenal ulcer.

3. There is no department of medicine that offers greater opportunity for errors in judgment than does obstetrics.

4. Should the physician do refraction? If he is willing to prepare himself to do satisfactory work, he most certainly should; otherwise, not.

5. Life insurance companies do our advertising and casualty companies dictate our fee schedule in industrial accident cases.

6. When patients pay from forty to fifty dollars a week for hospital room and care they are entitled to a little human consideration.

7. Is the cloud of state medicine or compulsory health insurance, which we have visualized during recent years, retarding or advancing?

8. One malpractice suit disposed of in January.

9. Time was when whisky was employed in medicine as a stimulant, but time has, as it so often does, proven that we can get along without whisky.

10. The Pawnee hospital is to be enlarged by adding a third story.

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March, 1927

PRESIDENT'S PAGE

S. 218

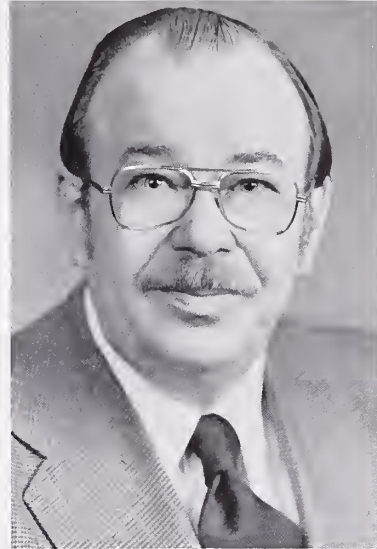
The 95th Congress of the United States is now in session. Among the deluge of bills to be heard and acted upon is S. 218 which was introduced by Senator Clifford Hansen of Wyoming. This bill is a national health insurance bill developed by the AMA and entitled "Comprehensive Health Care Insurance Act." It has been referred to the Senate Committees on Finance and Labor and Public Welfare for study and public hearings.

Senator Hansen has called this proposal "a good and balanced program . . . worthy of serious attention." He further characterizes this legislation as one which "will build on the present system of employer-employee group health insurance plans . . . will provide for federal financial assistance on the basis of need."

Are you concerned by this action of Senator Hansen and the AMA? Do you agree that it was wise for the AMA to sponsor a type of national health insurance? Is the AMA listening to Nebraska? Were Nebraska physicians represented in sponsorship of this legislation?

What is the record? At the October 2, 1976 meeting of the House of Delegates of the Nebraska Medical Association, Resolution #9 was approved. Such directed that a resolution be introduced in the AMA House of Delegates in opposition to the reintroduction of a national health insurance bill into the 95th Congress.

The Nebraska resolution was duly relayed to the AMA and considered by the House of Delegates in session in Philadelphia in December 1976. Similar resolutions were introduced by the states of Illinois, Louisiana, New Mexico, and South Carolina. The Nebraska delegates to the AMA, Drs. John R. Schenken and Carl J. Cornelius, were tremendous in debate on the merits of this resolution, both at the reference committee hearings and on the floor of the house prior to voting on the reference committee report. You and I as Nebraska physicians were well represented by our delegates. We can be



proud of our representation — we can be gratified that our voice was heard loud and clear.

However, the resolution was defeated by a vote of 181 to 57. The majority of our colleagues in medical practice did not agree with our view. Their position that the AMA needed to have a positive legislative approach in being "for" a legislative measure rather than "opposed" carried the day. The majority favored the view that we were in a better political position by having a legislative bill to serve as a basis of negotiation. This majority prevailed.

We saw the democratic process in action. We were represented. Our views were presented and heard. Policy was established. We now join in support of the established policy in a spirit of unity. This is our strength and this is the strength of the AMA. As individuals and as the Nebraska Medical Association, we may not be in full accord with established policy. Although we may continue to work to have our position prevail, we accept the democratic process and openly provide full support of the position of the AMA in today's political arena. We need to maintain such unity of action.

Harlan L. Papenfuss, M.D.
President



TAKE A BOW, AUXILIARY

At a recent Auxiliary meeting in Chicago Joseph Von Thron, M.D., member, AMPAC Board of Directors, explained some of the weaknesses in other countries' medical systems. He expressed complete faith in our free enterprise system and the importance of doctors becoming politically active in order to retain the far superior medical system that we have in this country. "Political activity by doctors is no longer sub rosa; it's now professional; it's ethical, it's legal; it's moral and it's expedient."

In referring to the Auxiliary he said, "I sincerely feel that of all the audiences I have had the pleasure of addressing in the past, I have always found the Auxiliary to be the most intelligent, the most knowledgeable, and the most attentive. I want to commend

those leaders of the Auxiliary because the work you are doing is enormously important. The wife of a physician renounces a wife's rights to a regulated life, and in so doing you share in his every endeavor and become your husband's most valuable collaborator. I am proud of the work the Auxiliary is doing and too many physicians are unaware of what an important asset you are to our profession. We need you."

Your State Board wishes to emphasize these remarks. We do need you. We do appreciate your efforts and support. Please help us as an Auxiliary. Send \$11.00 for State and National dues to Mrs. Harry Shaffer, membership chairman, Calvert Place, Lincoln 68506, by March 15, if your spouse has not already paid for you on his dues statement. Your AMPAC (American Medical Political Action Committee) and NEBPAC contributions are always welcome. Funds are used to support political candidates who act in favor of medicine's positions.

Harriette Francis, Pres. NMAA
Grand Island, Nebraska

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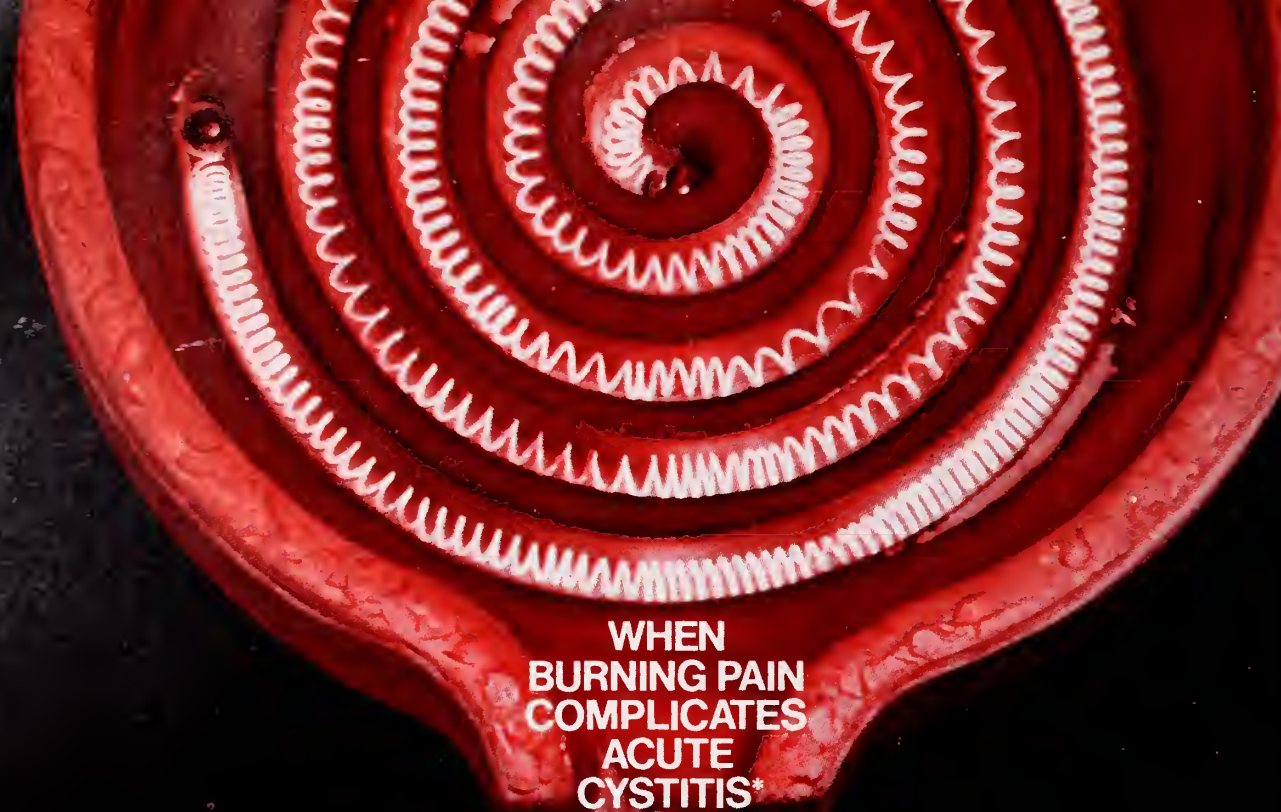
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- Quickly relieves painful symptoms such as burning and pain associated with urgency and frequency.
- Recommended antibacterial therapy: up to 3 days with Azo Gantanol, then 11 days with Gantanol (sulfamethoxazole).

Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis*, and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies.

Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura,

FOR THE PATHOGENS

- Effectively controls susceptible pathogens such as *E. coli*; *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

*nonobstructed; due to susceptible organisms

hypoprothrombinemia and methemoglobinemia); allergic reactions (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *G.I. reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Azo Gantanol is intended for the acute, painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

NOTE: Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

DYAZIDE[®]

Trademark

MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION*

Each capsule contains 50 mg. of Dyrenium[®] (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.



Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

WARNING

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Indications: When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

Contraindications: Further use in progressive renal or hepatic dysfunction; hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs. Routine use of diuretics in otherwise healthy pregnancy.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with

cardiac irregularities. It is more likely in severely ill patients with urine volume less than one liter/day, the elderly or diabetics, with suspected or confirmed renal insufficiency. Periodic determinations of serum K^+ should be made. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. The presence of a widened QRS complex or arrhythmia in association with hyperkalemia requires prompt additional therapy. Thiazides are reported to cross the placental barrier and appear in breast milk; fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and other adverse reactions that have occurred in the adult may result. When used in pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+ . Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium[®] (triamterene, SK&F Co.), and

leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotics to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion, since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

SK&F CO., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation

TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

**BURROUGHS WELLCOME CO. MAKES
CODEINE COMBINATION PRODUCTS.
YOU MAKE THE CHOICE.**



**EMPIRIN[®]
COMPOUND
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Each tablet contains:
codeine phosphate, 32 mg (gr ½),
(Warning: May be habit-forming);
aspirin, 227 mg; phenacetin, 162 mg;
and caffeine, 32 mg.



**EMPRACET[™]
c CODEINE
#3**

Each tablet contains:
codeine phosphate, 30 mg (gr ½),
(Warning: May be habit-forming);
and acetaminophen 300 mg.



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Between Cases

Words We Can Do Without.

In receipt of, concur, it has recently come to my attention.

Quote Unquote.

A man might take the first aspirin of his life and die of it! By that reasoning it became impossible to treat anyone.

Solzhenitsyn: Cancer Ward.

Postop Department.

Did very well following this and had some pain expected and was discharged home not doing well. Will be followed in the office.

Overheard.

All I need to worry about now is anxiety.

Section On Youth And Dying.

Some say the young look on death quickly and then away.

Helen Sorrells: Town I Left.

On Statistics.

The average American surgeon works 46 hours a week, and performs 170 operations a year.

In My Wallet.

Genuine imitation leather.

Japanese proverb.

Lepers envy syphilitics.

Question Department.

Does the patient die
If nobody knows?

Susan Schaeffer: Truth.

Heard In The Office.

I think it's warmer than it is.

After turning down the thermostat.

The Physical.

Tests were performed poorly with his lower extremities.

Headline I Read.

Redistricting excites apathy.

Section On Therapeutics.

Chicory has been prescribed for self-pity.

Wait A Minute.

B.P. 140/100, 142/108: not exercised; fearful of angina; had heart attack one year ago.

Diagnosis: No cardiac disease found.

—F.C.

Medicnews

Heart Princess crowned.

Janet Sue Tauchen of Falls City, Nebraska, was recently crowned the 1977 Nebraska Heart Association Princess by Governor J. James Exon. The ceremony, which was held in the Governor's office, kicks off February — Nebraska Heart Month. Immediately after crowning Janet, he signed a proclamation declaring February, 1977 to be Heart Month.

Janet Tauchen, 13 years old, underwent open heart surgery to close a hole in a chamber wall that was discovered in a preschool physical taken in September of 1968. The corrective surgery was performed here in Nebraska in April of 1969 and by July of that year, Janet was actively engaged in normal activities. Ever since that spring, she has been a very active girl, entering most sports activities, including tennis, horseback riding, swimming, and basketball. For the past three years, Janet has served as cocaptain of the Falls City



Gov. J. James Exon and Janet Sue Tauchen

heart drive for the Nebraska Heart Association. She is presently organizing a Mended Hearts Club for Richardson County. Janet attends Sacred Heart School in Falls City, where she is a baton twirler for the school band.

Welcome New Members

John F. Aita, M.D.

105 South 49th Street
Omaha, Nebraska 68132

William H. Fleming, M.D.

University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Bruce D. Forney, M.D.

619 Box Butte Avenue
Alliance, Nebraska 68301

Philip A. Gasseling, M.D.

211 West 33rd Street
Kearney, Nebraska 68847

Alan R. Hopeman, M.D.

University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Thomas C. Howard, M.D.

University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Jan V. Jensen, M.D.

Box M
3011 Avenue A
Kearney, Nebraska 68847

Bernard C. Korbitz, M.D.

Methodist Hospital
Omaha, Nebraska 68114

Brent E. Krantz, M.D.

University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Harold J. Kuehn, M.D.

8300 Dodge, #219
Omaha, Nebraska 68114

William W. Lyons, III, M.D.
7 West 31st Street
Kearney, Nebraska 68847

Khanh Quoc Nguyen, M.D.
107 North Clinton
Weeping Water, Nebraska 68463

Michael F. Roark, M.D.
P.O. Box 1289
601 West Leota
North Platte, Nebraska 69101

Raymond L. Schulte, M.D.
410 South Saddle Creek Road
Omaha, Nebraska 68131

Sutin Srisumrid, M.D.
Mary Lanning Hospital
Hastings, Nebraska 68901

Carroll L. Verhage, M.D.
1322 "H" Street
Geneva, Nebraska 68361

REINSTATED MEMBERS

David M. Holloway, M.D.
Norfolk Regional Center
P.O. Box 1209
Norfolk, Nebraska 68701

William D. Reardon, M.D.
Box 67
Lynch, Nebraska 68746

Lowell A. Stratton, M.D.
805 West Court
Beatrice, Nebraska 68310

WashingtonNotes

National health insurance.

Four key lawmakers, representing both political parties, have introduced into the new Congress an AMA proposal for national health insurance.

Association President Richard E. Palmer, M.D. urged the 95th Congress and the Carter Administration to consider carefully "this forthright approach to national health insurance. This bill would extend health insurance to every American at a cost the nation could afford. It is a viable solution to the problem of providing quality health and medical care to everyone."

The *Comprehensive Health Care Insurance Act of 1977* was introduced into the Senate by Senator Clifford P. Hansen (R-Wyo.) and in the House by Reps. Tim Lee Carter (R-Ky.), John M. Murphy (D-N.Y.), and John J. Duncan (R-Tenn.).

The medical profession's NHI plan would build on the structure of the present system of employer-employee group health insurance plans, mandating each employer to provide comprehensive and catastrophic benefit coverage with the employer picking up at least 65 percent of the cost. Employees would not be compelled to participate.

The self-employed as well as the non-employed could purchase qualified private health insurance, through pools if needed, at a cost not more than 125 percent of the cost of group plans. They would have all or part of the premium paid for by the federal government depending upon their income tax liability.

Small businesses that found the mandated plan an added financial burden would receive federal assistance.

Medicare beneficiaries could purchase supplemental insurance to bring Medicare benefits to a par with those offered elsewhere, with the government assisting people with limited resources. Medicaid would, for the most part, be supplanted under the program.

After a certain level of co-insurance was reached, depending upon income, insurance would cover all remaining expenses as a complete protection against catastrophic costs.

The co-insurance factor would deprive no one of needed care, the sponsors said. The absolute maximum that any individual would have to pay would be \$1,500; the absolute maximum for any family would be \$2,000 in any given year.

Senator Hansen, a member of the Senate Finance Committee, said:

"The bill we are introducing today would solve the problem of financing for every American. It would guarantee quality medical care to everybody. It would cover the cost of catastrophic illness. It would be fully comprehensive in terms of benefits. It would build on our present system, rather than dismantling it and replacing it from scratch with a new one requiring the creation of a giant bureaucracy. It would allow everyone to choose his or her own physician, dentist and health insurance plan. And it would be a plan we can afford.

"This legislation would cover the poor by paying all of their insurance premiums," Hansen said. "Those better able to afford to pay those premiums would be assisted in a fashion commensurate to their need by lesser degrees of government help. The affluent would even be encouraged to buy health insurance by a tax subsidy of ten percent of the premium cost."

Rep. Carter, ranking minority member of the House Health Subcommittee, said that "— as a member of the House Subcommittee on Health and Environment for twelve years, I have devoted much of my legislative effort to issues concerning our country's health care system. And as a physician, I have made a personal commitment to do what I can to help improve the health care of our people.

"It is these proven skills and resources of the private sector which I believe we should build upon in developing a national health insurance program, and which should be supplemented only when necessary by government.

"This proposal would provide coverage to the great bulk of the American population through employer-employee financial arrangements in which not less than 65 percent of the premium would be paid by the employer," Carter said.

"For those who are self-employed or unemployed, health insurance would be provided through an income-tax credit or federal certificate of entitlement system. Thus this plan would correct one of the major weak-

nesses of our present system by removing the financial barriers that in the past have denied some Americans access to high quality care."

Rep. Murphy, with Carter a member of the House Interstate and Foreign Commerce Committee, said the proposed legislation would provide "— more comprehensive benefits than any other (proposal) previously considered by Congress; and it would deliver quality health care to everyone — including the poor, and the elderly — without bankrupting the nation.

"For those unemployed, or of low or fixed income, and the elderly, premium costs would be paid by the government on an equitable sliding scale," he said.

Rep. Duncan, a member of the House Ways and Means Committee, questioning how Congress could write a national health insurance plan while preserving at the same time the fiscal integrity of the Treasury, said:

"The Comprehensive Health Care Insurance Act of 1977 . . . controls costs by limiting federal help to those in need by determining that level of need from income tax liability. Additional cost controls are found in its co-insurance factor, except for the poor; its provision of preventive care; and its promotion of competition among health insurance carriers."

M-M spending.

Medicare and Medicaid spending next fiscal year is predicted to top \$35 billion, up more than \$5 billion for the estimate of the current fiscal year. The Ford Administration's final, and somewhat academic, budget proposal to Congress for financing the federal government next fiscal year set overall health, education and welfare spending in fiscal 1978 at \$159 billion, an increase of \$11 billion. More than \$100 billion of this, however, is in Social Security Trust Fund outlays.

There was little new in the budget plans for health compared with last year's budget except for the steady creep upward (19 percent) of costs for Medicare and Medicaid.

Budget requests for most HEW health activities were kept to about this year's level. The Carter Administration is slated to submit its own federal spending plans about mid-February. These are certain to include hefty proposed boosts in some health areas.

HEW spending on health has jumped from \$9.7 billion in 1968 to a predicted \$42.2 billion. It will rise another \$3 billion next year, according to budget charts.

HEW & NHL

The Carter Administration has announced through its new Secretary of Health, Education and Welfare that a "well-thought through" national health insurance proposal cannot be submitted to the Congress this year.

Joseph Califano, at his first press conference after confirmation as HEW Secretary, predicted that the Administration

would first concentrate on health care cost controls and better utilization of existing federal programs.

M-M fraud.

Tightening Medicare-Medicaid fraud provisions is one of the first orders of business before Congress. Legislation has been introduced in House and Senate by key health lawmakers who pledged speedy action.

The bill, sponsored by Sen. Herman Talmadge (D-Ga.) and Reps. Paul Rogers (D-Fla.) and Dan Rostenkowski (D-Ill.), makes provider fraud a felony rather than a misdemeanor, arms Professional Standards Review Organizations (PSROs) with power to review "Medicaid Mills," requires certain financial disclosures by nonphysician providers, and requires PSROs to turn over information to state and federal agencies investigating fraud and abuse as well as health planning agencies.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS

- March 5 — Kearney, Elks Lodge
- March 19 — Sidney, Elks Lodge
- April 2 — Broken Bow, Elks Lodge
- April 23 — Hartington, Trinity Lutheran Church

NEBRASKA ACADEMY OF FAMILY PHYSICIANS — Annual Scientific Session, March 24-25, 1977, Cornhusker Hotel, Lincoln, Nebraska.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

INDIANA CHAPTER ACEP-EDNA EMERGENCY MEDICINE SEMINAR will be held at the Airport Hilton Inn, Indianapolis, Indiana on May 11 through May 14, 1977. CME Credits Applied For: 20 hours; Co-sponsor: Indiana University School of Medicine. Fee: \$50.00 - \$100.00. Contact:

David Gettle, M.D., 10005 Hillsdale, Carmel, Indiana 46032, 317-844-7105. Note: This seminar is in conjunction with the first day of Time Trials for the Indianapolis 500 Memorial Day Race.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, Fairmont Hotel, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool

Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

NEBRASKA MEDICAL ASSOCIATION
FALL SESSION — September 29 & 30,
October 1, 1977, Lincoln Hilton Hotel,
Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION —
Interim Session, House of Delegates,
December 4-7, 1977, Palmer House, Chicago,
Illinois.

AMERICAN MEDICAL ASSOCIATION —
Winter Scientific Program, December 10-
13, 1977, Miami, Florida.

COLONOSCOPY TRAINING PROGRAM —
The New York Society for Gastrointestinal
Endoscopy supported by a Cancer Control
Grant from the American Cancer Society,
will now offer two week training programs
in the techniques of fiberoptic colonoscopy
for the detection and management of
colonic neoplasm to qualified physicians
and surgeons. The training program will
be conducted at several institutions in
New York City. Preference will be given
to those physicians and surgeons who have
had previous experience with fiberoptic
endoscopy and who are from community
where fiberoptic colonoscopy is not yet
readily available. Please send curriculum
vitae to: Paul Sherlock, M.D., Chief
Gastroenterology Service, Memorial Sloan-
Kettering Cancer Center, 1275 York
Avenue, New York, New York 10021.

The Letter Box

To the Editor:

Something should be said and done about the very hard mattresses that are inflicted on the public in hospitals and sleeping places. The promotion of these is attributed to orthopedic surgeons who found that the early hospital beds that sagged in the middle were not tolerated well by patients with lower back trouble. To correct this they placed a bed-wide board beneath the mattress and learned that this helped. From this the mattress makers misinterpreted that the same results would be obtained by making the mattress firm or hard and sold this to the public making beds not much better than sleeping on a hard floor. The result was some benefit to patients with back trouble but presented a problem for the hospital patient with little protective tissue cushion over weight bearing bone prominences, with poor circulation, tended to cause painful

pressure areas and bed sores when frequent movement was not possible for relief of pain.

Competent studies by the air corps for protection of bomber pilots who have to sit long hours in one position have shown the best support in the seat is about two inches of polyurethane foam for tolerance as long as eight hours. This should be applied to mattresses in their construction by placing this same two inch layer of foam uppermost in the mattress, but this has not been done by any mattress manufacturer. A simple way to add this top layer is to have made a separate quilted two inch thick medium weight polyurethane foam layer with wide cover cloth extensions on the sides to tuck under the mattress to hold in place.

It will be surprising how well this top foam layer will convert a too hard mattress into a comfortable bed for restful sleep.

J. Jay Keegan, M.D.

Books



Current Medical Diagnosis and Treatment, by Marcus A. Krupp, M.D. and Milton J. Chatton, M.D. and associate authors; 1066 pages; \$16.00 limpcover; published 1977 by Lange medical Publications, Los Altos, California.

This is the 16th annual revision of this book which first appeared in 1962. The number of pages has gone up since last year from 1062 to 1066, but the book is, of all things, thinner; the price is two dollars higher.

It is a good book, and well worth its cost.

—F.C.



"These deductions for advertising . . . aren't you a little ahead of the times, Doctor?"



"Quiet. This is a hospital zone."

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Physicians' Classified

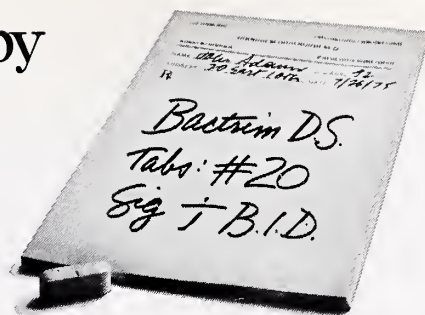
Advertisements in this column are at a rate of ten cents per word with a minimum of \$4.00 per insertion. Copy must be received by the fifth of the month preceding date of publication and should not exceed 50 words. Advertisements from members of the Nebraska Medical Association will be accepted without charge for one issue. Each advertisement will be taken out following its first appearance unless otherwise instructed. Where numbers follow advertisements, replies should be addressed in care of The Nebraska Medical Journal, 1902 First National Bank Building, Lincoln, Nebraska 68508.

ONE OF LINCOLN'S finest Medical-Dental Office Buildings will have available after November 1, 1976, one large and one medium sized medical office suite. Will redecorate or redesign to suit tenant. Please contact Dick Gaughan, 489-2718 or Dr. T. L. McKee, 489-5440 or call at Business Office, Suite 1600, 5440 South Street.

WANTED: Quality binocular microscope for botanical research with 3 achromats, oil, 10X eyepiece, (camera lucida desired, but not necessary). Write or call: Nebraska Medical Association Headquarters Office, 1902 First National Bank Building, Lincoln, Nebraska 68508 (402) 432-7585.

VACANCY — Urgent need for one or two Family Practitioners to take over large practice. Available June 1, 1977. Returning to Orthopedic Residency. Excellent gross, low overhead, high collections. 20 miles from all specialties, Grand Island. One other solo G.P. will alternate. Excellent hospital facilities. Call: Barry Turner, M.D., Central City, Nebraska 68826. 308-946-2003 after 7 p.m.

10-day Bactrim therapy outperforms 10-day ampicillin therapy.



In a multicenter, double-blind study of patients with chronic or frequently recurrent urinary tract infection, Bactrim 10-day therapy outperformed ampicillin 10-day therapy by 27.2%, when comparing patients who maintained clear cultures for eight weeks. Criterion for "clear culture" was 1000 or fewer organisms/ml of urine.

While adverse reactions noted in this study were mild (e.g., vomiting, nausea, rash), more serious reactions can occur with these drugs. See manufacturer's product information for complete listing. Maintain adequate fluid intake; perform frequent CBC's and urinalyses with microscopic examination.

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris* and *Proteus morganii*.

NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections. The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema

multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

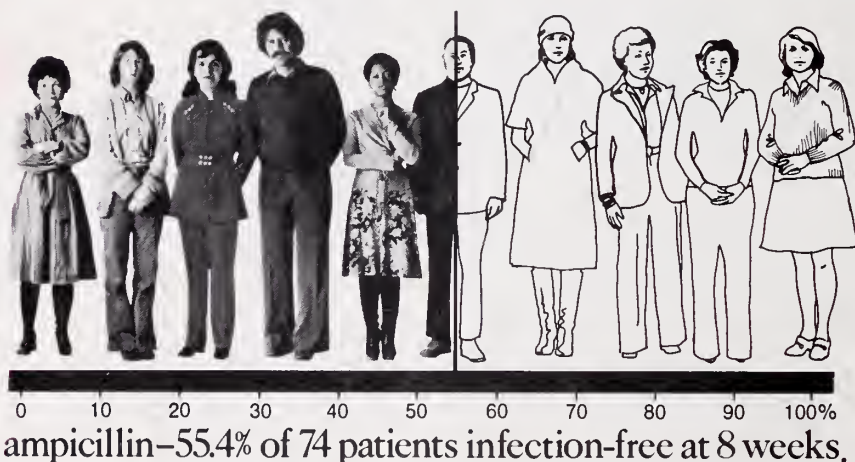
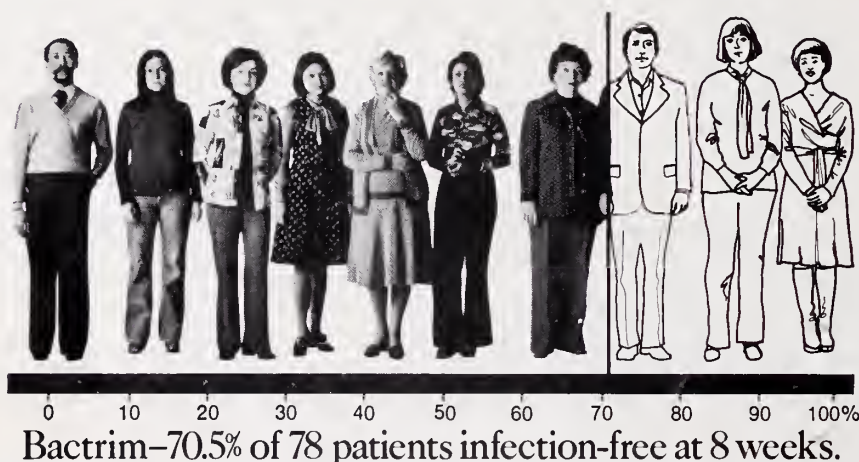
Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-flavored—bottles of 16 oz (1 pint).



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

In a multicenter study of patients with chronic or frequently recurrent urinary tract infection

Bactrim was 27.2%* more effective than ampicillin in keeping patients infection-free for 8 weeks.†



*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey 07110

BactrimTM DS
(160 mg trimethoprim and 800 mg sulfamethoxazole)

Double Strength tablets
Just 1 tablet B.I.D.

Please see summary of product information on preceding page.

ROCHE

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

BALCONY

The Nebraska Medical Journal

NEBRASKA
MEDICAL ASSOCIATION
109th Annual Session
MAY 1 — 4, 1977
HOLIDAY INN
OMAHA, NEBRASKA

April, 1977

A character all its own.



Valium (diazepam) is a benzodiazepine with a character all its own.

Pharmacologically, it has been described as more potent mg-per-mg than other available anxiolytic benzodiazepines. Pharmacokinetically, only Valium provides active *diazepam* as well as the active metabolites 3-hydroxydiazepam, desmethyldiazepam and oxazepam.

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Another important aspect of the clinical character of Valium is safety. Though drowsiness, ataxia and fatigue are possible, these and more serious side effects are rarely a problem. Of course, as with all CNS-acting drugs, patients taking Valium should be cautioned against driving, operating dangerous machinery or the simultaneous ingestion of alcohol.

Unquestionably, many psychotherapeutic agents, including other benzodiazepines, have antianxiety effects. But one fact remains: you get a certain kind of patient response with Valium. It's a response you want. A response you know. A response you trust as part of your overall management of anxiety and psychic tension.

Valium[®] (diazepam)^{IV}

2-mg, 5-mg, 10-mg scored tablets
a prudent choice in psychic
tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders, athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories
Division of Hoffmann-La Roche Inc
Nutley, New Jersey 07110

The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
3901 So. 27th St., Lincoln 68502

APRIL 1977

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Letters to the Editor submitted for publication should be prepared as above, and must carry the notation: To be Published.

Reprints should be ordered from the printer, Norfolk Printing Co., Inc., P. O. Box 278, Norfolk, Nehr. 68701.

Cigarette Smoking and Atherosclerosis in Autopsied Men — J. P. Strong (Louisiana State Univ Medical Center, New Orleans 70112) and M. L. Richards, *Atherosclerosis* 23:451-476 (May/June) 1976.

The association of cigarette smoking and atherosclerosis was investigated in 1,320 autopsied men, 25 to 64 years of age. Aortic and coronary lesions were evaluated visually in coded specimens and objectively by analysis of radiographs. Using schedules that had been tested on pairs of living persons, interviewers obtained estimates of cigarette smoking habits of the deceased men from surviving relatives. Data were analyzed for black and white men in the total sample of cases and also in groups according to the presence (selected disease group) or absence (Basal group) of diseases thought to be associated with smoking (such as emphysema and lung cancer) or with coronary heart disease (myocardial infarction, hypertension, diabetes, or stroke). Atherosclerotic involvement of aortic and coronary arteries was greatest in heavy smokers and least in nonsmokers for both races in the total sample of cases, the basal group, and the selected disease group.



"What a morning — three hypochondriacs and the agent who handles my malpractice insurance! Who's next?"



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ON PAGES 129 TO 143

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is

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When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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Precautions. Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

Adverse Reactions. Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

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Tedral: Adults—One or two tablets every 4 hours. **Children**—(Over 60 lb) one-half the adult dose.

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Supplied. Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

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MEDICINE AND RELIGION DINNER
Speaker: Ned H. Cassem, M.D.

MONDAY — MAY 2

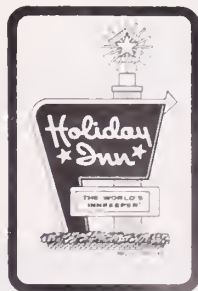
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TUESDAY — MAY 3

OPENING CEREMONIES
SYMPOSIUM ON THE DIAGNOSIS AND
TREATMENT OF GASTROINTESTINAL
HEMORRHAGE
ATHLETIC — MEDICINE LUNCHEON
Speaker: Mr. Jesse Owens
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FUN NIGHT

WEDNESDAY — MAY 4

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Edwin Hughes (Dr. Ned) Cassem is Associate Professor of Psychiatry at Harvard Medical School in Boston, Mass. Dr. Cassem's articles on death and acceptance of death have been widely published. He is Project Supervisor for the Pastoral Encounters with the Disabled and Dying, Youville Hospital, Cambridge, Mass., and Boston Theological Institute. He is Director of Liaison Psychiatry at Massachusetts General Hospital in Boston. Dr. Cassem is a Trustee of Creighton — Nebraska Universities Health Foundation, member of the Editorial Board, Heart and Lung, Canadian Institute of Religion and Gerontology, and Chairman of the Jesuit Council for Theological Reflection.

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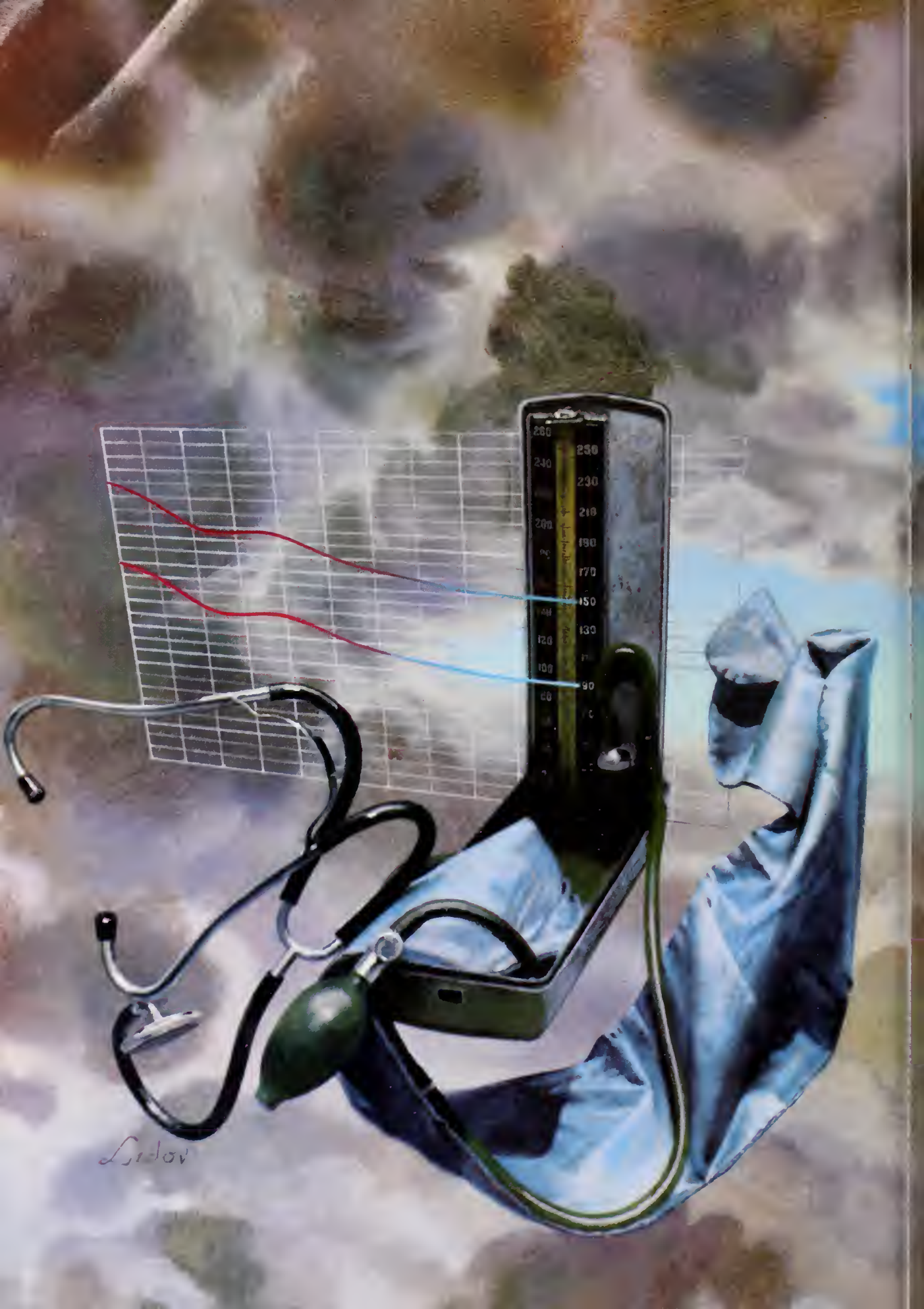
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Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease. **Contraindications:** Anuria, hepatic coma or precoma; allergy or sensitivity to Zaroxolyn. Or, as a routine in otherwise healthy pregnant women. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is a particular hazard in digitalized patients; dangerous or fatal arrhythmias may occur. Azotemia and hyperuricemia may be noted or precipitated. Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced. Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing

age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur in edematous patients in hot weather. **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth,

hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg. Dosage adjustment may be necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg

References:

1. Dornfeld L, Kane R: Metolazone in essential hypertension. The long-term clinical efficacy of a new diuretic. *Curr Ther Res* 18: 527-533, 1975.
2. Data on file, Medical Department, Pennwalt Prescription Products

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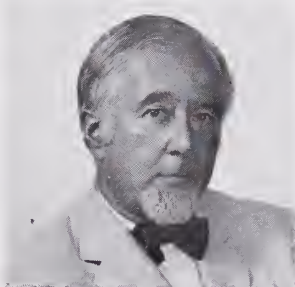
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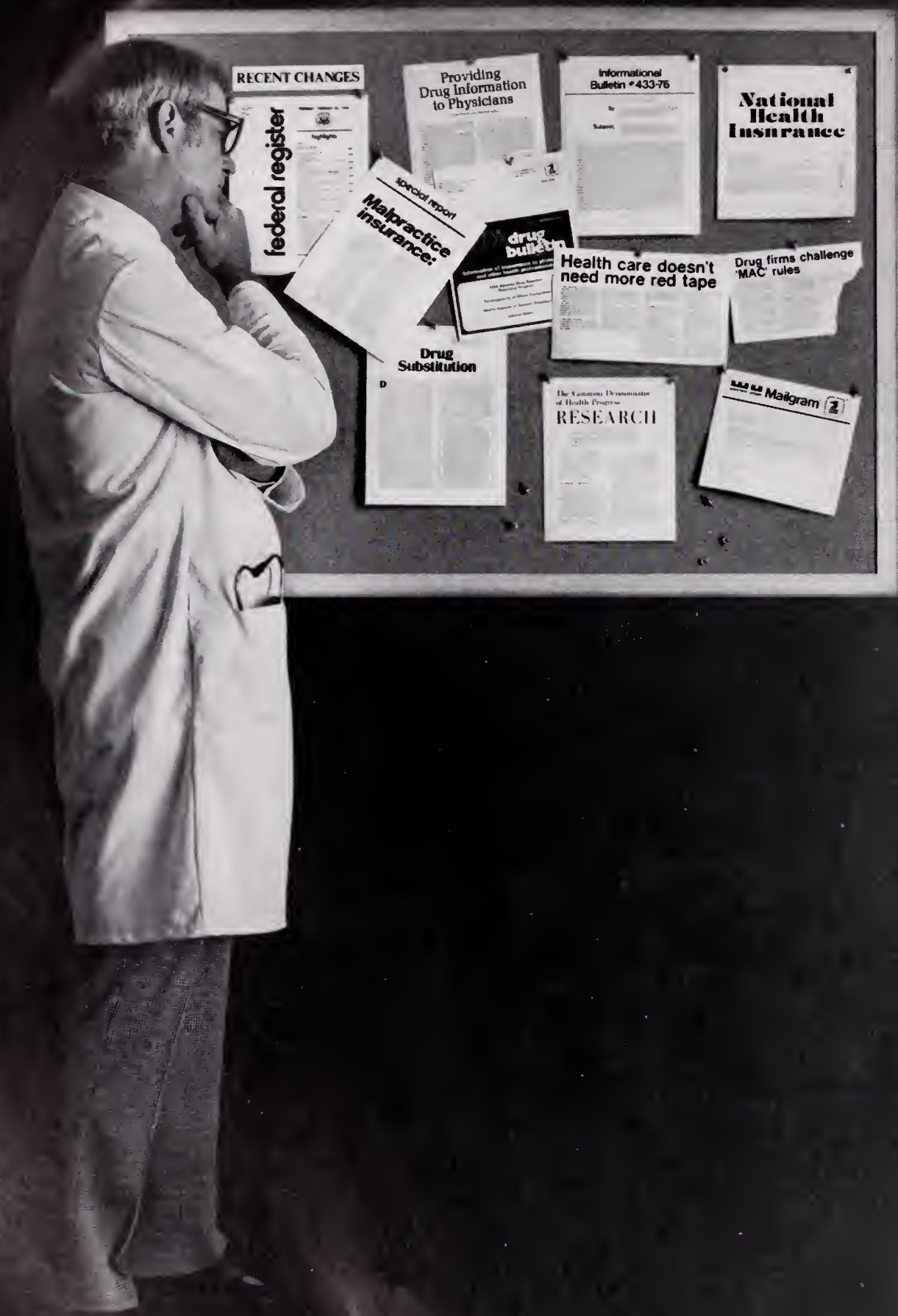
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Mailgram 2

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



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Neurologic Disorders Responsive to Folic Acid Therapy — M. I. Botez et al (Clinical Research Institute of Montreal, 110 Pine Ave W, Montreal, Quebec) Can Med Assoc J 115:217-223 (Aug 7) 1976.

Six women aged 31 to 70 years had folate deficiency and neuropsychiatric disorders. The three with acquired folate deficiency were depressed and had permanent muscular and intellectual fatigue, mild symptoms of restless legs, depressed ankle jerks, diminution of vibration sensation in the legs, stocking-type hypoaesthesia and long-lasting constipation; D-xylose absorption was abnormal. The bone marrow was megaloblastic in only one patient, and she and one other had atrophy of the jejunal mucosa. The third was a vegan. All three recovered after folic acid therapy. The other three were members of a family with the restless legs syndrome, fatigability, and diffuse muscular pain. One also had subacute combined degeneration of the spinal cord and kidney disease but no megaloblastosis; she improved spectacularly after receiving large daily doses of folic acid. The other two also had minor neurologic signs, controlled with 5 to 10 mg of folic acid daily. Unrecognized and treatable folate deficiency (with low serum folic acid values but normal erythrocyte folate values) may be the basis of a well-defined syndrome of neurologic, psychiatric, and gastroenterologic disorders, and the restless legs syndrome may represent the main clinical expression of acquired and familial (or inborn) folate deficiency in adults.

Postprostatectomy Impotence — M. L. Madorsky et al (M. G. Ashamalla, Psychiatry Service (116), VA Hosp, Gainesville, FL 32602) J Urol 115:401-403 (April) 1976.

With the help of the principles of rapid eye movement sleep and nocturnal penile tumescence, 14 patients who underwent transurethral prostatectomy were studied by monitoring the electroencephalograph, electro-oculograph, and penile plethysmograph activity preoperatively and postoperatively. No instance of complete loss of penile erection was found postoperatively. The need for objective rather than subjective data is emphasized.

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A brief summary of the Prescribing Information for
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WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO₂, and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its deriva-

tives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD₅₀ of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD₅₀ ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD₅₀ of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



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Prevention of Bone Loss Following Oophorectomy in Premenopausal Women — J. M. Aitken et al (St Bartholomew's Hosp, London, England) *Isr J Med Sci* 12:607-614 (July) 1976.

Prospective studies of bone mass in women following oophorectomy for benign conditions were done by the double-blind technique. Skeletal response to treatment was measured by photon absorption densitometry. Untreated patients were found to lose bone mass rapidly during the first two years after oophorectomy. When estrogen replacement was started within two months of oophorectomy, it was found to be effective in preventing subsequent bone tissue loss. Three years following oophorectomy, untreated women who had already lost bone tissue, and who were then started on estrogen replacement, showed a highly significant increase in their bone mass. The women in whom this treatment was delayed for six years did not respond. No untoward effects were noted in these women, perhaps, in part, because they had undergone hysterectomy.

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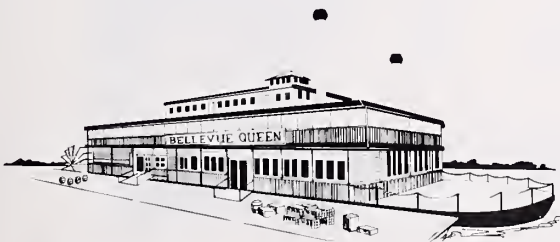
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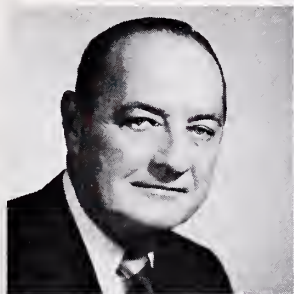
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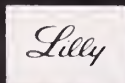
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THE NEBRASKA MEDICAL JOURNAL

ON TAKING YOUR OWN ADVICE

Doctors are advice-givers; advice is often all we have to sell. Go to bed, we say; bend your kness when you lift; take this antibiotic; get an x-ray; go on a diet. We are in the habit of having people come to us and we tell them what to do; and who are we then to take advice? We *give* advice; we don't *take* it.

We prescribe yearly examinations, and we do not take them ourselves. We recommend annual sigmoidoscopy, but not for us. We tell our patients to get x-rays, but we do not get them. And we tell others to stop smoking.

But half of us smoke at medical meetings, inflicting the known dangers of smoking on themselves and on their defenseless non-smoking friends. I asked, do you get an annual procto (which is what they laughingly call a sigmoidoscopic examination, and which it is not), while my friendly physician was doing it to me, and he said I've never had one, they can't catch me.

As for an annual examination, I have yet to have it, and this seems to be true of my colleagues. Grab me whenever you can, a friend told me, like in the doctors lounge; but the doctors lounge is not where you get a complete yearly physical.

Should the doctor stop smoking? I think he should tell the patient what is good and what is not; and then, like the patient, take this advice or not. Since so many doctors smoke, hypocrisy abounds, or else many feel as I do.

We are going to smoke if we like, and setting an example is not in it, pretending not to smoke when you do is simply silly. We are going to eat too much of all the wrong things. It is possible that we may even drink. We may not exercise, and we may feel that x-rays are not for us. Do we not enter the sickroom when others are barred, do we not fly in the face of danger, do we not expose ourselves to contagion? Do we not work long hours, do we not treat the sick at night?

Doctors don't get sick. And we don't take our own advice. Disease is for everybody

else. We don't get sick. We went to medical school.

—F.C.

ON MORBIDITY, MORTALITY, AND
THE VALUE OF A HUMAN LIFE

There is no arguing about mortality; you may quibble over such things as adjusted rates, but one is either dead or alive, and it is easy to put these people and their numbers into boxes. Morbidity is different; it can mean having a headache or getting syphilis, it can be nausea or it may be severe brain damage. Morbidity can be of only trifling value or it may be as bad as death or worse, if you agree that severe brain damage, when it is permanent, is worse than death.

Almost everything can be measured, and sometimes with difficulty: you can count nausea or define it, can you measure headache, and what of tinnitus? And does not a human life have value? Hospital equipment is costly now, while we did not have it before. If someone dear to you could be saved, but at a cost of a million dollars, would you buy it? The value of a human life has been estimated, but it was a long time ago, and I think it came to \$15,000; I may have misplaced a decimal point, but it does not matter.

If you are to choose between two procedures, would you select one with very few deaths and high morbidity, or would you take another with a very slightly larger mortality rate, but with a much less morbidity? Would you always take the one with the lower death rate? I think you would not.

And what of life shortening? If as a result of treatment, a patient will die in twenty years, that is mortality, but not immediate. Is one person's life worth more than another's? Is a man's life worth more than a woman's, or a baby's more than an adult's?

If you have not measured a thing, you do not know anything about it. But counting is not always easy, and carefulness is our watchword. It is hard to count vomiting, one

patient may spit out a few drops and another may hurl it across the room. And when you ask if everything is all right, a patient may say yes, but if you ask if he has vomited, you may get another answer; and have you then asked a leading question, and one that will not give you the truth? Death rates can be clean and easy, morbidity may be of little importance or may be as serious as dying; measuring and counting are difficult and sometimes impossible; the value of life is, like life span itself, finite. There.

—F.C.

IS BURSITIS ARTHRITIS, IS BRONCHITIS EMPHYSEMA?

I have read that a patient with obstructive lung disease may see three doctors in one day and come away with three separate diagnoses of asthma, bronchitis, and emphysema. To some of us, they are the same; to the expert, they are not; and to a few others, the diagnosis of chronic obstructive pulmonary disease is best. If a physician is fond of diagnosing arthritis, it is likely that he will see arthritis when another will find bursitis, and a third will say tendinitis. And what of chondromalacia of the patella; shall we diagnose it when the x-ray is negative because it can exist without x-ray evidence?

Shall we say to the patient, you have a ruptured disk when we first see him; or, you have ulcer disease? How quickly ought we to diagnose, and how certainly? Without autopsy, may we put down, myocardial infarction? Even with autopsy, it may require the better part of a year to cut up and completely examine a brain and so to find a lesion that might otherwise be missed.

I agree, we see a patient for a matter of minutes and must come up with a diagnosis, and with or without a barrage of tests, it is not always easy, but we are paid to diagnose and not to say, I don't know.

Does it make a difference if we say bursitis and it is arthritis? If there is severe bronchitis, may we say emphysema? If we

say ulcer disease in the presence of hiatal hernia, have we blundered?

Medicine is a science, and we may be getting more scientific than we want, not less. Chronic obstructive lung disease sounds grand, and we may want to extend this sort of thing to chronic knee disease and chronic stomach disease and chronic heart disease. For one thing, we'd be better diagnosticians.

—F.C.

DISEASES AND SYNDROMES

Inevitably, strange-sounding words and funny names creep into our medical jargon and enrich our everyday language with smile-provoking titles. Our business is serious enough; pain is with us always, death is no stranger. But consider these disease entities.

There is half and half nail, and yellow nail, and green nail, white spot syndrome, and red palms, and black heel, and green urine syndrome. We have Fox's disease, Wolf's disease, Parrott's disease, Bird's disease, and Robin's disease, and both cat cry and cat scratch disease. There is a steakhouse syndrome, a happy puppet syndrome, a solitary hunter syndrome, a dead finger syndrome, a women-who-fall syndrome; and such things as ondine's curse, padded dash syndrome, burning feet syndrome, elfin face and floppy infant syndromes, stiff-man syndrome, spasmodic laughter syndrome, and maple syrup syndrome.

There is a cocktail party syndrome, rock fever, dead fetus syndrome, snapping thumb syndrome, a bobble-head doll syndrome, and a thing called old sergeant. We have a Darling's disease, Hers's disease (there is one for His, too), Milkman's syndrome, Othello syndrome, and fatigue disease.

And there is a tired arm syndrome, an Alice in Wonderland syndrome, and Cole's sign, and a Camera syndrome, and an ear wagging syndrome.

—F.C.

Intussusception in Patients with Cystic Fibrosis

Abstract

A 16-year-old boy with cystic fibrosis had intermittent episodes of abdominal pain probably due to recurrent intussusceptions. This type of bowel obstruction is probably more frequent in patients with fibrocystic disease. Thick, viscid, inspissated feces appears to be the cause of the intussusceptions. Prevention of the inspissation may reduce the incidence of these obstructions. The treatment for this problem is the same as in other (noncystic) patients.

RECENT studies indicate that patients with cystic fibrosis may be especially susceptible to intussusception as more of them overcome their difficulties and live longer.¹ Intussusception should be suspected in any patient with cystic fibrosis who develops colicky abdominal pain. We recently treated a patient who illustrated several features of intussusception associated with cystic fibrosis.

Report of Case

A 16-year-old boy with cystic fibrosis was admitted to the pediatric service with severe abdominal pain. He had been hospitalized twice before for this problem, at age 11, and two weeks before this admission. The latter episode began with attacks of intermittent, sharp, stabbing, epigastric pain occurring three to four times a day. During the following week the pain became more frequent and more severe despite the use of an ulcer diet plus antacids. Eating solid food produced nausea and vomiting. The patient's stools became loose the day before his present admission; one contained dark blood. Physical examination demonstrated a markedly dehydrated patient with an oral temperature of 38.5C (101.3F), abdominal distention and tenderness, but without guarding or masses.

Plain x-rays of the abdomen demonstrated bubbly, granular material along the course of the colon as well as in the midabdomen (Fig.

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and

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1). A barium enema was nondiagnostic because of a large amount of feces in the rectosigmoid. X-ray examination of the upper gastrointestinal tract showed only antero-superior displacement of the stomach. The leucocyte count was 31,000/cu mm. The serum amylase was low.

The patient's abdomen became more tender and a sausage-shaped mass appeared in the lower left quadrant 24 hours after admission.

At operation, a ileocolic intussusception extending to the sigmoid colon was found (Fig. 2). The small bowel proximal to the lesion was markedly distended and was filled with a thick, putty-like material. The dilated colon accounted for the anterior displacement of the stomach. The neck of the intussusception was blanched at its entrance into the midtransverse colon, and the wall of the involved colon was gangrenous. The colon and 40 cm of ileum were resected, and an ileosigmoidostomy was performed. The patient had an uneventful postoperative course, and five weeks later was doing well with no change in his stools or bowel habits despite the extensive bowel resection.

Discussion

Cystic fibrosis occurs in one of every 2,000 live births, and is usually diagnosed by the triad of chronic pulmonary disease, exocrine pancreatic insufficiency, and increased sweat electrolytes. Pulmonary complications usually shorten life.

Gastrointestinal symptoms may precede the onset of the pulmonary problems. Meconium ileus is the presenting problem in 10% to 20% of patients and rectal prolapse in another 20% that escape initial detection.² Hendrix³ states that about 80% of patients have virtually a complete loss of exocrine pancreatic function and therefore may demonstrate malabsorption, while the remaining 20% may exhibit pancreatitis because of an incomplete loss of exocrine function. In older children, abdominal pain, often due to fecal impaction, is a frequent complaint. Duodenal ulcer rarely occurs because the increased production of intestinal mucus seems to compensate for the lack of alkaline pancreatic secretions.

Intussusception is responsible for most infant bowel obstructions.⁴ Although there is an identifiable cause (polyp, lipoma, etc.) in 85% of adults with intussusception and in 33% of children over the age of eight, a definite cause is seldom found in patients under two years of age.¹



Figure 1

Supine x-ray of abdomen showing bubbly, granular material in the colon and in the midabdomen.

Abnormal intestinal mucus in fibrocystic patients is responsible for the thick, viscid, inspissated feces that produces meconium ileus in infants and impaction and obstruction in older children and adults. In the absence of any anatomic cause, this same adherent, putty-like material is believed to serve as the lead point of an intussusception because it cannot be propelled along the intestine or through the ileocecal valve.^{1,2,3}

The symptoms of intussusception are essentially the same in patients with or without cystic fibrosis. Cramping abdominal pain, distention, tenderness, and a palpable sausage-shaped mass are commonly present. Vomiting may occur in one half of the patients. The incidence of blood in the stool may increase with age. A few patients will have an incomplete obstruction and thus will continue to have either normal stools or diarrhea. Diagnosis can usually be confirmed by barium enema.¹ In patients with cystic fibrosis, the presence of granular, bubbly material in the colon and small bowel on plain abdominal films should be a clue to the presence of inspissated feces.



Figure 2

Operative specimen with clamp on the ileum and the scalpel pointing to the entrance of the ileum into the mid-transverse colon.

Seliger⁵ points out that early treatment of the thickened feces will probably abort most impactions and potential obstructions. Since some cases seem to be triggered by a recent fat restriction in the diet, an increase in fat content may help to break up the feces. Enzymes, solvents like Tween 80, and mucolytic agents such as acetylcystein, given orally or by enema, have been useful in individual cases. However, these approaches should not be used in place of operation when indications for operation are present.

There is general agreement that, if the patient's condition permits, a barium enema should be attempted in suspected cases of intussusception. Not only can it confirm the diagnosis, but often the lesion can be reduced with little change of recurrence unless some anatomic cause is present.¹ Contraindications have included the risk of perforation and the risk of an inordinate delay in operation. However, Ponka⁴ has demonstrated that, if standard procedures are followed, such risks are insignificant.

For an intussusception that is not reducible by barium enema, celiotomy with manual reduction is required. Holsclaw,¹ in his series of fibrocystic patients with intussusception, reports that operation is necessary in 19 of 22 patients, with 17 of these being reduced manually. One explanation given for success with manual reduction is that, due to chronic over-filling of the colon, the dilated bowel has decreased tone and produces less spasm, thereby providing more room for the intussusceptum to slide in and out. If the operation is delayed more than 24 hours after the onset of symptoms,

the mortality rises from less than 1% to over 20%.⁵

McLaughlin⁵ gives three reasons for the occurrence of any irreducible intussusception: a) delay in diagnosis and operation; b) the site of the lesion, e.g., ileoileal versus ileocolic; and c) multiple intussusceptions. Operations for an irreducible intussusception in patients with cystic fibrosis are no different from those in noncystic patients. The procedure of choice is resection and primary anastomosis unless the patient is so critically ill that a shortened operating time is mandatory. The Mikulicz exteriorization and resection is an alternative that provides immediate decompression but presents problems in managing the ileostomy that are felt to be major drawbacks. It has been suggested that if the intussusciens is not gangrenous, the lesion may be left in the abdomen and a proximal side-to-side entero-anastomosis may be done to "short-circuit" the site. This approach presumes that the intussusceptum may slough and pass *per rectum* with a spontaneous serosal fusion resulting in a secondary anastomosis.^{5,6}

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Vasectomy: A Review of Psychological and Physical Side Effects

PART II

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and

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Viewing vasectomy from the perspective of effectiveness as a birth control method, in a statistical summation³ of medical, sexual, and psychosocial changes of 73 vasectomized men, no pregnancies were reported in 70 cases, (one of the three cases reporting a pregnancy involves a man who continued to have a positive sperm count after two vasectomies and, needless to say, is now disenchanted with the procedure as a means of contraception). Of the 73, 11 reported changes in their health, six for the better and five for the worse, while 13 men felt there was an improvement in their wives health that they related directly to the operation, i.e., decreased tensions before menstruation and less fatigue and anemia from pregnancy. Of the five who reported a setback in their health only one felt there was any association with the operation.

Data concerning sexual behavior reveals an increase in mean coital frequency from 8.4 to 9.8 times per month, in an age bracket where a decrease was to be expected. More than two thirds of the men report greater freedom and lessened inhibitions, while less than one fourth reported no change. Three fourths were more content with the overall satisfaction of coitus and there were similar percentages for ratings on duration and control of ejaculation and quality of orgasm.

Husband's evaluations of their wives sexual satisfaction show that 80% felt their wives were less inhibited sexually, while almost 50% felt their wives reach orgasms more easily. Forty percent of the wives initiated foreplay more often than before the operation. Only three of the subjects reported a less satisfactory sex life.

Special interest was given to the topic of extramarital sex because of reports that vasectomized men tend to act out sexually when pregnancy has been removed as a consequence. Only one person reported an increased promiscuity that soon faded, with

the stated reason being an improved relationship with his wife. Similar statistics have been reported in other studies.^{5,6} Clinical experience with vasectomized patients indicates that these studies may have stopped too soon. The author has observed increased extramarital sexual behavior two to five years after vasectomy. Obviously this observation may be coincidental and the number of patients is only nine.

When discussing a future vasectomy with a patient, it is important to keep in mind that there are side effects and complications as with any surgical procedure and several unique to this operation. The procedure should be approached as though it is irreversible and final even though recanalization is sometimes possible. After recanalization there is a high percentage (70%) of anatomical success as judged by the reappearance of spermatozoa in the ejaculate.¹⁶ The successful pregnancy rate is significantly lower, however, being only 14% in one study¹⁶ and up to 40-50% pregnancy in another series.¹³ Experience with various foreign body reversible devices has met with dismal results.⁸

In a review of the literature by Leader and coworkers,²⁰ they found considerable variability in the reported incidence of complications that tends to be obscured by the lack of standardization of terminology. However, the incidence appears to be 0.4-6.1% epididymitis, 5.5% scrotal abscess, 0.0-6.0% infections, 4.9-10% sperm granuloma, 1.5% cellulitis, 0.0-6.0% operative failure, 0.0-18.2% hematomas, and 2.8% ligature abscess.

In another reported series of 1,100 patients, in whom all but the first 210

patients received intraoperative steroids, (200 mg depo-medrol mixed with 1% xylocaine and injected directly into the scrotum) there were parallel results with the exceptions of a lower incidence of hematoma and sperm granuloma.¹⁴ They also reported that postoperative discomfort and swelling may be decreased by the use of steroids.

For a review of operative techniques used, there is ample discussion in the literature, 14,15,18,19,20

Recent attention has been directed toward the possibility of altered auto-immune responses and changes in various laboratory parameters. There is a reported increase in circulating sperm-agglutinating antibody titer. The titer was increased in 62% of the men followed for 2 years after vasectomy, while an increased titers was present in only 1% of the same prevasectomy population. These antibodies begin to form within two weeks of the procedure and in studies to date, they peak around 18 months and tend to remain at a relatively constant level thereafter.⁹ It is postulated that these antibodies may play some role in infertility. In reports on infertile marriages, 15% of the husbands and 17% of the wives have been found to be producing sperm agglutinating antibodies in the sera.¹² Titers of these antibodies were shown to decrease by usage of low doses of prednisone. This may ultimately prove to be an adjunct in the management of infertility. It has also been noted that persons with a spermatic granuloma have higher titers of sperm agglutinating antibodies and that continued extravasation of sperm is known to produce a high titer of sperm agglutinins.⁷

What happens anatomically to the testes following vasectomy? Microscopic studies of vasectomized canine testes have shown only minimal degenerative changes and atrophy of the seminiferous tubules during the first four months following operation. At the end of six months, regeneration had occurred so that the tubules appeared normal and remained so thereafter.¹⁷

Other animal testing involving investigations of numerous laboratory parameters (i.e., CBC, glucose, BUN, creatinine, total

protein, globulins, acid phosphatase, SGPT, and insulin) showed no significant differences even when followed for 4-8 years. This supports the safety of vasectomy as a routine procedure.¹¹ Preoperative and postoperative studies on FSH, LH and testosterone have not revealed any significant changes.¹⁰

In summary, with the increased popularity of this operation (750,000 in 1971) it is imperative that physicians are aware of possible physical complications and psychological changes (both beneficial and adverse). Preoperative counseling to alleviate myths about vasectomy is clearly important and probably should be considered mandatory. Finally, recognize that there are relative contraindications to the procedure.

The most significant statements from this paper are as follows:

1. The vast majority of men are very happy with the anatomical result of a vasectomy following the operation.
2. There does appear to be a small but significant number of people who report a reduction in overall satisfaction with their marriage after vasectomy even though they say they would make the same decision again.
3. To various extents, most men look upon vasectomy as somewhat demasculinizing. Reassurance and openness by the physician can aid better communication between the husband and wife and alleviate their anxieties.
4. The procedure should be approached as though it is irreversible. Recanalization has been performed with a high anatomical success (70%), but successful pregnancy rates are much lower (approximately 15%).
5. There is an increase in coital frequency after vasectomy at an age when the frequency for the general population is declining.
6. The majority of men report intercourse to be more satisfying.
7. Sperm antibodies begin to form within 14 days of the procedure. While only 1% of prevasectomy patients have significantly increased titers.

(The sperm agglutinating antibodies are also found in a high percentage of infertile marriages).

8. There are no lasting anatomical testicular changes.
9. There have been no proven changes in any laboratory parameters other than the above mentioned sperm-agglutinating antibodies.
10. Contraindications to the procedure include:
 - a. Disagreement with the wife over its advisability. This is the strongest contraindication.
 - b. Consent to the operation on the basis of another person's urging, either wife or friend.
 - c. When sterilization appears to be an attempt to save an already failing marriage.
11. Prior psychiatric treatment does not carry a poor psychological prognosis.
12. The use of intraoperative steroids may help alleviate postoperative discomfort and side effects.

When a patient comes to a physician with a request for a vasectomy, his initial reaction can have a great impact on the future husband-wife interaction and all too often the possible adverse effects are stressed rather than the benefits. While a physician may have his own feeling regarding how old the man should be, number of children, age of the wife, and acceptability of other means of contraception, etc., the decision for sterilization is basically the right of the individual. There are numerous reasons that will bring the patient to the physician. Thus a doctor should not attempt to force his value judgments on his patient, once he has ruled out contraindications to the vasectomy.

While it may be difficult to generalize why a man seeks a vasectomy since each case will be different, many feel that it is just as important for the doctor to feel good about the procedure as it is for his patient. When the physician is sold on the procedure, he will have happier patients.

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Removal of an Extrauterine IUD by Combined Laparoscopy and Colpotomy

Abstract

Combined laparoscopy-colpotomy for removal of extrauterine intrauterine devices, IUDs, has not previously been reported. The authors present one case.

THE perforation rate for the insertion of the Lippes Loop has been reported by Tietze to be 1 per 2500.¹ Obviously, when perforation does occur, removal of the extrauterine IUD is indicated and the advisability for removal has been the subject of several reports.²⁻⁴ Several authors have reported the successful removal of pelvic and lower-abdominal IUDs by use of the laparoscope.⁵⁻⁹ Colpotomy alone has been reported for removal of an IUD.¹⁰

We wish to report a case where laparoscopy alone was considered to be dangerous due to the omental positioning of the IUD. A combined laparoscopy-colpotomy was successfully performed.

Case Report

The patient, a 29 year old white female, para 1001, presented herself to our office complaining of intermenstrual spotting and upper abdominal distress. An upper GI series revealed the presence of an apparent intraperitoneal intrauterine device (Fig. 1). Hysterosalpingography with fluoroscopy confirmed the presence of the device in the left anterior pelvis (Fig. 2).

The patient's past history revealed that a Lippes Loop, Size D, had been inserted in 1971 without difficulty. However, one week later the patient was unable to palpate the strings. Her physician, suspecting spontaneous loss, inserted a second loop which was removed after six months due to bleeding and cramping. The patient was placed on oral contraceptives. This medication was continued until she presented to us with intramenstrual spotting and upper abdominal distress.

On 11 April 1975, the patient was taken to the operating room for laparoscopic removal

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of the Lippes loop. The loop was found in the left lower quadrant firmly attached on both ends to the distal omentum. Despite adequate pneumoperitoneum, it was believed that laparoscopic operative removal of the IUD would be difficult and dangerous. With two suprapubic instruments, the loop could not be easily separated from the omentum. The loop and omentum were, however, freely movable so that it could be grasped and pushed, and held in the posterior cul-de-sac. The primary surgeon performed a colpotomy while the first assistant held the loop with omentum in the posterior cul-de-sac and directed the colpotomy visually from above. As the loop was grasped through the colpotomy incision the pneumoperitoneum was lost, and the laparoscopy instruments removed.

With both sharp and blunt dissection, the loop was removed from the omentum, and the colpotomy was closed.

The patient was discharged the following day and was doing well 12 weeks postoperatively.

Discussion

When the loop could not be separated from the omentum with the laparoscopic instruments, laparotomy was considered. Abdominal removal could have been easily performed, but would have necessitated a longer hospital stay than colpotomy.

The authors were unable to find a previously reported case of laparoscopy combined with colpotomy for extrauterine IUD removal. It is hoped that this technique may be used when (1) operative laparoscopy



Figure 1

is thought to be dangerous or too difficult, (2) the IUD with attachments can be moved easily into the posterior cul-de-sac, and (3) the operator is skilled in the performance of colpotomy.

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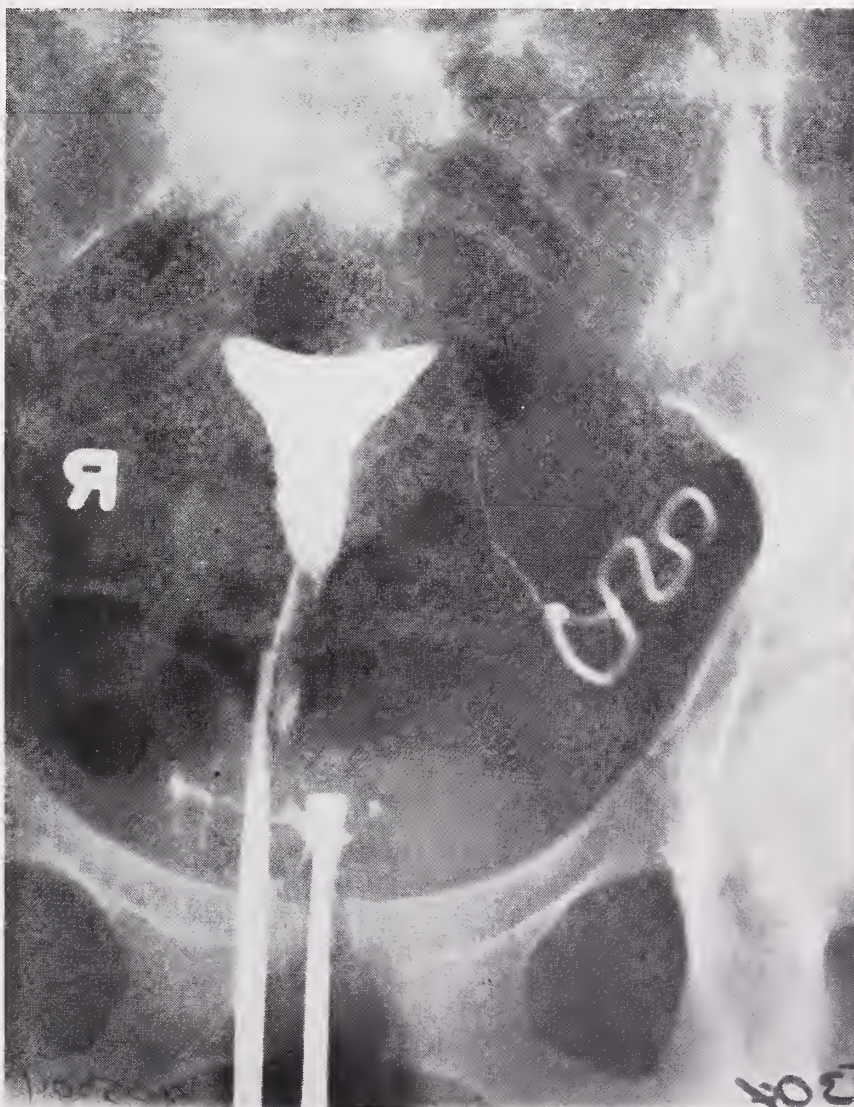


Figure 2

Health Maintenance Program — One Year's Experience

ON July 1, 1974, the state's first Health Maintenance Program began operation in southwest Nebraska. It is the first such plan in Nebraska, and is one of the early Alternate Delivery Systems of its type to start in rural America. The state Medical Association in Wisconsin, using the Wisconsin Physician Services (Blue Shield) based in Madison as the operating entity, pioneered the Health Maintenance Program concept in the United States. The Southwest Nebraska Plan is similar to, but not an exact copy of, the Wisconsin Program.

A half decade ago, the Nixon Administration, with bipartisan legislative support, enacted the Health Maintenance Organization Act of 1973, also known as Public Law 93-222. This legislation was written to help implement recommendations of the National Advisory Commission of Health Manpower which had earlier pointed out the need for alternatives to traditional fee-for-service medical practice. Prior to Public Law 93-222, the federal government operated programs to stimulate and broaden health services. Such efforts are known as the Hill Burton Construction Act, Medicare and Medicaid, Comprehensive Health Planning, Regional Medical Programs, and others. Until Public Law 93-222 was passed, federal involvement in health care had been largely limited to (1) expansion of health facilities and programs, (2) education, and (3) financing of health services, primarily with Medicare and Medicaid. The Health Maintenance Act of 1973 is the federal government's first attempt to influence change in conventional medical practice.

The Health Maintenance Organization concept was first introduced in the United States by Dr. Paul Ellenwood, a pioneer of prepaid, closed panel practice programs for medical services. Since this early beginning, several modifications of prepaid group practice have evolved. There are now many strong programs serving tens of thousands of enrolled people. Such programs can be

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generalized in three categories: one, the Health Maintenance Organization, highly structured systems that are usually staffed with salaried physicians who work in owned clinics and hospitals and that generally serve groups of 30,000 or more people; two, Independent Practice Associations, organizations that are put together by groups of physicians who elect to associate themselves in order to provide health care at fixed monthly rates guaranteed to remain constant over a period of time (usually 12 months); and three, Health Maintenance Programs. The third, the Health Maintenance Program, is the class of Alternate Delivery System that now operates in Southwest Nebraska. Briefly, it takes certain management elements common to Health Maintenance Organizations and IPAs and applies these to the private practice of medicine. Of the three classes, only the HMO and the IPA can be certified by the Health Maintenance Act of 1973. To date, few such plans have elected to ask for certification. This suggests that the HMO, envisioned by the Nixon Administration to be the medical practice model of the future, might be less of a model than was planned.

The Southwest Nebraska Health Plan provides advance payment for the cost of care delivered in the physician's office. This mode of payment removes fiscal barriers that might, under a fee-for-service arrangement, delay the treatment of conditions beyond a time when such treatment is most productive. This feature, plus tighter management of referrals to medical specialists by the primary care physician, creates a saving of dollars, and allows for a rate

structure that is approximately that of conventional Blue Cross and Blue Shield dues.

On July 1, 1974, the Southwest Nebraska Plan began operation with 169 members. Over twelve months, the number increased to 1,617. Membership now exceeds 2,000. On an average, 850 people were served throughout the twelve-month period ending June 30, 1975. These accounted for 105 hospital admissions, using 517 inpatient hospital days. Eighty-five, or 78%, of total hospital admissions took place either in the McCook or Cambridge Hospitals. Total dues paid into the program by enrolled members for the first 12 months were \$156,576.03. Advance payment to 11 participating physicians, fees paid to referral physicians, and amounts remitted to hospitals added up to a total that equals 79% of the 12 months' dues income. This favorable financial performance permitted Blue Cross and Blue Shield to enter the second year of the program without an increase of dues.

When evaluating such a Plan, the following points might be given scrutiny. For the patient, 1) that the prepayment of costs incurred in the physician's office removes fiscal barriers which historically have caused people to seek out physician's services past the time when treatment is most effective, and 2) that improved fiscal access to immunizations, routine health maintenance, and prompt care of occasional physical impairments minimizes episodes of acute illness. This feature, over time, contains use of the most costly element of health care, inpatient hospital service. For the physician, 1) the relationship with patients in the plan is strengthened, 2) patients' requests for inpatient hospitalization are reduced, and 3) a more productive control of patient referral to medical specialists is engendered under the program. Since prepayment dollars for office services are made at the beginning of each month in amounts equivalent to revenue from office fee-for-service charges, cash flow from office practice income is improved. Clerical costs should be reduced,

since there is no longer need for preparing statements, nor are there bad debts to contend with. Periodic reports mailed to the physician describe how enrolled members' needs are being fulfilled. At the end of a fiscal year, there is an accounting from Blue Cross and Blue Shield for all dues paid in by enrolled members, and how such dues are spent. This gives the physician near total insight into the economics of the plan.

The Southwest Nebraska Health Plan offers a choice to people residing in four Southwest Nebraska counties. They may continue conventional type prepayment, or opt for the alternate that requires a management arrangement with physician or clinic of their choice. Once the enrolled member makes such a commitment, Blue Cross and Blue Shield does not pay claims that are not authorized by the physician involved in the management arrangement. Lowering the fiscal barriers to office practice has always been thought to be an invitation to probable misuse of physician office services. No scientific study about the extent of such probable abuse appears to have been made. Though misuse of office practice by people enrolled in the Southwest Health Care plan is possible, up to this point in time, it has been of minor significance. In areas where such problems might occur, there is a means of minimizing such abuse. One is to request people that abuse the program to opt back into a conventional Blue Cross and Blue Shield Plan. This can be done at the end of any contract year. More importantly, it is felt that the Southwest Health Care Plan offers the patient and physician an opportunity to take part in a system and to participate in the economic benefits that might come about because of such an arrangement. Surely, it offers an alternative to the traditional "fee for service" medical practice and, over time, may help to minimize probable government involvement in medical affairs, at the same time, it supports the traditional physician-patient relationship that has so long been a part of medical practice in Nebraska.

Functional-Clinical Anatomy for Physician's Assistant Students

AT the University of Nebraska Medical Center, the Physician's Assistant (PA) is considered to be a new breed of health practitioner who, by reason of education and experience, is prepared to work under the supervision of a physician and aid the physician in carrying out his patient care responsibilities.¹ Although the PA is a relatively new member of the health care team, a number of reports²⁻⁷ suggest that the PA may become one of the most significant developments in the delivery of health care in the seventies. The reason is that the PA can buy time for the physician to concentrate his skills and training where they count the most. The PA can extend the arms, legs, and brains of the physician by performing tasks traditionally incumbent upon a physician that do not demand the unique talents of a physician.

In order for the PA to realize his potential in the health care system, he must be accepted as a competent professional by both patients and front-line practitioners. Although a number of surveys indicate that the patients are beginning to accept the PA,⁸⁻¹² there is still not universal acceptance among practicing physicians. Since such acceptance is, in part, dependent upon general recognition of the high quality of PA training programs, universities responsible for such programs must publicize the excellence of the training that PA students receive and so provide physicians with a sounder data base concerning the potential of the physician's assistant.

At Nebraska, we believe the product of a PA training program should unquestionably be a knowledgeable and skilled individual able to assist the physician in the delivery of health care to the American people. To this end, the Department of Anatomy at the University of Nebraska Medical Center offers a PA Anatomy Training Program designed to ensure the PA student receives the necessary anatomical training consistent

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The 24 week (204 hr) PA Anatomy Program provides the student with an opportunity to learn the gross and microscopic structure of the human body by means of lecture, laboratory, tutorials, reading assignments and various audio-visual learning aids.¹³⁻¹⁶ Throughout the program, emphasis is placed on the functional and clinical applications of anatomy relative to the needs of a future physician's assistant. This is especially true in the weekly 1½ hour living anatomy^{17,18} laboratories where students are provided with an opportunity to demonstrate or to see on each other, live, the anatomy they have learned in other phases of the course.

Description of PA Living Anatomy

In living anatomy, the PA student learns to conduct a systematic anatomical evaluation of the normal individual (male and female) which serves as a preparation for future activities involving the examination of ill patients. The class is voluntarily integrated with respect to sex; students, therefore, use each other to learn most areas of normal male and female anatomy. Ex-

ceptions are made for those living anatomy classes dealing with rectal and vaginal examinations. These classes are designated as single-sex only. Each living anatomy session is conducted jointly by an anatomist and a physician who structure the class to accomplish a predetermined number of instructional objectives. The class is student-centered and, under the guidance of the instructors, students work in pairs alternating as examiner and patient. When appropriate, otoophthalmoscopes, stethoscopes, and other diagnostic aids are used. Students are encouraged to develop an understanding of clinical-anatomical concepts and practice sound examination techniques. The instructors seek to continually reinforce successful student effort, amplify selected concepts and demonstrate the relevance of anatomy to the practice of medicine.

In order to determine exactly what clinical anatomical knowledge is prerequisite to becoming a competent PA, it was necessary to consult with clinical faculty in various specialties, physicians in private practice and basic science faculty. Additionally, a number of task inventory information surveys and guidelines¹⁹⁻²¹ were examined to ascertain patient care responsibilities of PA's in both preceptorships and permanent health care positions. The result of these efforts is a set of living anatomy instructional objectives which may be defined as a series of precise statements which describe the knowledges or performances required of the PA student for successful completion of the course of instruction, and the development of an appropriate text book: *Living Anatomy: The Basis of Physical Examination*.²²

The following are five sample objectives taken from a list of 568 living anatomy objectives:

Describe and demonstrate a thorough physical examination of the breast.

State the functions of each cranial nerve (motor, sensory, and secretomotor where appropriate). Describe and demonstrate the standard tests for each cranial nerve.

Describe and demonstrate how to delineate the underlying heart by percussion.

Describe and demonstrate examination of the inguinal canal in the male. State the

anatomical differences between direct and indirect inguinal hernias.

Describe and demonstrate how to test the functional integrity of the anterior and posterior cruciate ligaments of the knee joint. Describe briefly the effect and the mode of production of injury to these ligaments.

Assessment of Student Learning in Living Anatomy

Student learning in living anatomy is assessed in part by three subjective examinations in which the student spends two 30 minute sessions in a one to one situation with different examiners. During these testing sessions, the student randomly selects questions from a large pool written in accordance with the educational objectives of the course. Each question requires the student to orally describe and/or perform selected examination procedures. Additionally, students are expected to respond to questions from the examiner concerning the anatomical basis of various pathological conditions and diagnostic procedures. Student performance is judged in three areas: (1) knowledge, (2) technique and skill, and (3) patient approach.

The following are five sample test questions taken from a pool of 208 questions. Each question is designed to be clinically interesting and provides the student with an opportunity to demonstrate a knowledge of anatomy as applied to the practice of medicine.

A patient is brought to you bleeding from a lacerated wrist which she received in a fall through a glass shower door. You suspect that she may have cut her ulnar nerve at the wrist. Describe and demonstrate how to test for loss of ulnar nerve function in the hand.

You suspect that your patient has a lesion of the motor root of the trigeminal nerve. What symptoms would you expect if he had such a lesion? How would you examine your patient to see whether he indeed had suffered from a lesion of the motor root of the 5th cranial nerve?

You see in the emergency room an innocent bystander who was caught in a

shoot-out. He has a bullet hole in the right side of his chest, and is very pale, shocked, and breathless. You suspect that he has a right hemothorax. What would you expect might happen to his trachea? Where would you expect to find his apex beat? How would you demonstrate that he had fluid in his right pleural cavity? What would you notice about the right side of his chest?

You are asked to see a 12-year-old boy who is complaining of a colicky pain of 24 hours duration which has moved recently from the region of the umbilicus to the right iliac fossa. Where would you start your abdominal palpation and how would you palpate this child's abdomen?

Your patient has been in a car accident and hit his right tibia hard against the dash. The right knee is very swollen at present. After the swelling has gone down, how would you decide whether he has any damage to his right posterior cruciate ligament?

Since assessment in living anatomy was subjective in nature, a rank order correlation between living anatomy scores and objective examination scores was performed in order to determine the reliability of the living anatomy examinations. A correlation of .77 was obtained which indicates a fairly high degree of reliability.

Student Evaluation of Living Anatomy

In order to determine student opinion of living anatomy, a questionnaire was submitted to all students (N = 16) three weeks after completion of the course. The following are the questionnaire results:

1. Of what value was the living anatomy class in terms of demonstrating the relevance of gross anatomy to the needs of a PA?
 - 53% a. highly valuable
 - 47% b. valuable
 - c. of some value
 - d. of little value
 - e. useless
2. The living anatomy class was conducted by an anatomist and a physician who collectively worked toward a common goal, i.e., the teaching of living anatomy as an introduction to physical diagnosis.

Please evaluate the relative value of the contribution of each instructor towards achievement of the common goal.

Anatomist

- 33% a. highly valuable
- 40% b. valuable
- 27% c. of some value
- d. of little value
- e. useless

Physician

- 67% a. highly valuable
- 27% b. valuable
- 6% c. of some value
- d. of little value
- e. useless

3. During the course, you had three one hour subjective living anatomy examinations. In these examinations, you were required to orally describe and/or perform selected examination procedures and respond to questions from the examiner. How valuable a learning experience were these examinations?

- 73% a. highly valuable
- 27% b. valuable
- c. of some value
- d. of little value
- e. useless

4. Do you feel living anatomy classes should be taught with:

- 87% a. mixed classes for all subject areas
- 13% b. mixed classes for only the non-sensitive areas with material designated as sensitive to be covered by book study only and tested by written exams
- c. single sex classes only with volunteer student models for sensitive areas
- d. single sex classes for all subject areas
- e. living anatomy classes should be abolished

Discussion

The overall objective of the PA Anatomy Program is to equip the future PA with the anatomical background necessary for delivery of effective care to patients. Patient care, in turn, requires an application of anatomy to the living person. It is, however, unreasonable to expect the PA to auto-

matically transfer to the patient anatomical knowledge gained through the study of cadavers. Without the benefit of prior experience within a supervised learning situation involving examination of the living body, initial knowledge transfer is often difficult. Living anatomy, therefore, serves as a solid learning bridge between the student's anatomical knowledge and future pursuits in physical diagnosis and clinical medicine. Through living anatomy, the student is able to apply to the living person what he learns in anatomy at the time he learns it.

Living anatomy also helps the PA student develop a sense of objectivity with respect to the disrobed human body. Since embarrassment so stimulated often impedes clinical learning and adversely affects patient rapport, the student is able to overcome any existent inhibitions prior to actual patient contact. By the end of the course and prior to the beginning of clinical rotations, the PA student is, therefore, expected to be able to confidently conduct a standard physical examination of either sex without inducing undue embarrassment in either the examinee or examiner.

The class evaluations of living anatomy via questionnaire provided some interesting information. Firstly, it is obvious that all the students felt living anatomy was relevant to their needs as future PAs. They also felt that both the anatomist and the physician were valuable contributors to the class. The relative contribution of the physician, however, was rated higher than that of the anatomist. This result was, of course, anticipated since the anatomist is not as germane to the PA student's chosen profession as is the physician. It is also interesting to note that 87% of the students thought that mixed classes should be used for all subject areas which includes those anatomical areas designated as sensitive. We were quite surprised with this finding, although it is highly unlikely that we will ever adopt a totally integrated class format.

Summary

In summary, it is felt that the PA Anatomy Program provides the student with the clinical-anatomical background necessary

to meet the projected health care responsibilities of a PA. Indeed, through the instructionally unique experience provided by the living anatomy component of the course, physical diagnosis will be more readily learned and the student will be able to more fruitfully spend his time on such phenomena as percussion, auscultation, and the various pathological manifestations encountered in the clinics. Ultimately, it will be the patient cared for by the PA and the physician who supervises the PA that will benefit from the type of anatomy training received by the PA student at Nebraska.

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The Physician's Assistant: Concept Becomes Reality

Introduction

THE Physician's Assistant Program at the University of Nebraska Medical Center is beginning its fourth year and has graduated 42 persons. The program could not have become a reality without the support of the State Legislature and the University of Nebraska Board of Regents. It would not have been possible without the cooperation and assistance of the practicing physicians in Nebraska. It seems an appropriate time to report to these physicians on the progress of the program and acceptance of the concept to educate nonphysicians to perform many of the tasks formerly performed exclusively by the physicians.

Definition

In Nebraska, a Physician's Assistant is a health professional who works under the responsible supervision of a physician or a group of physicians, and is certified by the Board of Examiners in Medicine and Surgery. This is an important distinction that marks the difference between the legal Physician's Assistant and the other assistants who work with a physician.

The Nebraska graduate is educated for his or her role after selection by a committee from applicants with at least two years of college credits. He/she then pursues a rigorous series of medical didactic (10 months) and clinical experiences (14 months) at the Medical Center and its affiliated

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institutions. Upon graduation they receive the Bachelor of Science degree.

As with any educational program, this one aims to give its graduates the background and experience to learn rapidly, and a basic set of skills upon which to build. While some of the graduates may be more extensively educated and skilled in some medical problems than others, all should be expected to achieve a high level of proficiency in any common problem area. Because of their educational background, they can achieve a high performance level more easily and more rapidly and with less input from the physician than can health workers without similar education.

In most practices the Physician's Assistant is used to manage common or frequent problems, especially those requiring extensive instructional time. The intent is to supplement the physicians input, not replace it. The preparation is for common primary care problems not difficult diagnosis or intensive management skills.

To use the title Physician's Assistant in Nebraska, a person must be duly certified by the Nebraska Board of Examiners in Medicine and Surgery. Such certification requires the person to be a graduate of an AMA accredited educational program for the assistant to the primary care physician (there are 47 such programs), and to meet other specific requirements stipulated in the law and the rules and regulations for Physician Assistants. Noncompliance with this legal requirement constitutes a serious felony, and is obviously a necessary safeguard for the public.

Student Characteristics

The 78 students accepted to date have varied backgrounds and experiences. There have been 55 men and 23 women, the average age is 25, with a range of 19 to 37. Three out of four of those accepted have some sort of health care experience, in addition to the required college credits, ranging from a few months to several years. Of particular interest is the fact that all of the students will have a minimum of four years of post-high school education at the time of graduation, and about 40 percent of them will have between seven to nine years of post-high school education at the time of graduation. This is important, since it seems to be a common misconception that the PA graduate is a young person with only two years of post-high school education. In fact, the average graduate is 27 years old and possesses at least one baccalaureate degree. Many graduates have seven to nine years of education at the college level, and often have

had significant health care experience prior to entering the PA Program.

Placement of Graduates

On July 1, 1976 the program had 42 graduates, and 34 certified PAs were employed in Nebraska. Thirty of these were educated here, roughly 75% of the Nebraska graduates. In addition, the state had attracted 4 graduates of other approved programs. Twenty PAs are employed in towns of less than 5,000 population. Thus the expectation that most of the graduates would seek employment in Nebraska and its smaller communities seems to be realistic. The program's strategy of having each of the students spend at least 16 weeks in a small community seems not only to be an effective way of showing the student that life in a small town can be rewarding, but also is an important strategy in introducing the physician to the PA concept and in helping him decide if a PA can help improve his practice.

TABLE II
Employment Locations of Certified Physician's
Assistants in Nebraska
[June, 1976]

	Nebraska Graduates	Other Programs
Less than 5,000		
Arapahoe	1	
Auburn	3	
Bassett	1	
Blue Hill	1	
Broken Bow	2	
Callaway	1	
Cambridge	1	
Curtis	1	
Friend	1	
Grant	1	
Imperial	1	
Mitchell	1	
Neligh		1
O'Neill	1	
Tilden	1	
Valentine	1	
Wahoo	1	
More than 5,000		
Grand Island	2	
Hastings	1	1
Lexington	1	
Lincoln	2	1
North Platte	1	
Omaha	3	1
South Sioux City	1	
	30	4

TABLE I

Physician's Assistant Student Characteristics
78 Students

Men	55
Women	23
Married	37
Single	41
Minority	3
Nebraska Residents	72
Nonresidents	6
Previous health care experience	59
Level of Education at Acceptance:	
Less than 4 years college	47
Bachelor's Degree	28
Master's Degree	3
Average GPA at acceptance	3.2
Average age at acceptance	25

It is also important to note that over 80 physicians in private practice have volunteered to serve as clinical preceptors. These physicians are located in about 40 towns from border to border throughout the state. A conservative estimate is that they have already contributed, without pay, more than 38,000 man-hours, or about 19 man-years to the education of Physician Assistant students.

Nature of Work

Information on the medical service being provided by the certified physician's assistant is limited, but some data has been collected. A preliminary analysis of this data indicates that:

- a. PAs are involved mostly in the physician's office performing physical examinations, participating under supervision in the management of lacerations, hypertension, upper respiratory infections, prenatal visits, pharyngitis, urinary tract infections, otitis media, tonsillitis, obesity, diabetes, contact dermatitis, and other common problems.
- b. They see about an equal number of men and women.
- c. They have contact with an average of about 21 patients per day and spend about 13 minutes with each patient.
- d. They spend about two hours per day in the hospital setting.
- e. They feel that they are well accepted by the patients, by their professional colleagues, and in the community.
- f. The employing physicians are pleased with their decision to employ a PA, feel that the PA is well trained, is economically feasible, and has provided them with time to see more patients, and generally made life more pleasant.

Professional Standards

Physician's Assistants must meet and maintain high professional standards. They receive supervision from their physician employer, who is legally liable for assuring

their competence and they are subject to hospital and medical society professional standards. In addition, they must abide by their own code of ethics promulgated by the Nebraska Academy of Physician's Assistants. The State Board of Examiners requires a job description to be approved annually and also oversees the annual recertification of the Physician's Assistants. There is in addition a national certifying procedure. This procedure involves an initial certification examination which is two days in duration and is administered by the National Commission on Certification of Physician's Assistants. This examination must be retaken every six years of professional life. Also, to maintain national certification the Physician's Assistants must document participation in at least 100 hours of approved continuing medical education activities every two years.

Summary

Good progress has been made in introducing the Physician Assistant into the health care delivery system in Nebraska. The concept has been well received by a large number of practicing physicians, especially among those that have had firsthand experience with the physician assistant student. Collectively, the certified assistants are providing quality medical service, under the supervision of physicians to several thousand persons each year. They are seeking employment in the smaller communities where they have been well received by other health professionals and the community. Problems of understanding the role of the PA, questions about his competency in selected areas, about what constitutes adequate supervision, reimbursement for his services and others remain. However, these are problems that can be and are in the process, of being resolved. What is important is that these new health professionals are proving to be an important, contributing factor in the delivery of primary medical care to the citizens of Nebraska, particularly in the geographical areas of great need.

NOTE: The authors welcome questions about the educational program from any person or groups.

Useful Blood Tests in the Diagnosis and Management of Cancer: A Review

PART I

A plethora of new laboratory tests and new uses for old ones are rapidly making the diagnosis and management of patients with cancer more scientific and, hopefully, easier.¹⁻³ While blood screening tests for cancer, in general, have been unsuccessful, some tests such as the CEA (carcino-embryonic antigen) can be used as an objective parameter in monitoring the response of certain neoplastic diseases to therapy.

The purpose of this paper is briefly to highlight useful blood tests and to point out how the more familiar laboratory blood tests can be applied in the diagnosis and management of cancer patients.

Five arbitrary categories of blood tests will be reviewed in chart form (Table 1-5) with brief discussion: (1) electrolytes and trace metals; (2) enzymes; (3) blood cells and proteins; (4) hormones; and (5) antigens and antibodies.

ELECTROLYTES AND TRACE METALS

The blood *calcium* determination in sick patients with cancer is an invaluable tool, as hypercalcemia can be readily detected and often reversed. The mechanism of the elevated calcium is not readily apparent, but is potentially useful in diagnosing the occult primary tumor. Thus, hypercalcemia in cancer becomes the "hypercalcemias of cancer"⁴ and the possible mechanisms⁴⁻⁶ include the ectopic production of parathyroid hormone (PTH), non-vitamin D sterols, vitamin D and its metabolites and perhaps osteoclast-activating-factors and prostaglandins.

Hyponatremia may suggest an ectopic anti-diuretic hormone (ADH) syndrome. *Hypokalemia* in a patient with cancer should suggest the drawing of a plasma cortisol for the ectopic ACTH syndrome, although plasma cortisols may be nonspecifically increased in the cancer patient in general.

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A somewhat new test is the *serum copper*, which is now establishing its usefulness as a serial marker of disease activity in Hodgkin's disease, most lymphomas and perhaps, in leukemias.^{3, 7-14} A trace metal measured by atomic spectroscopy, serum copper is found to be directly proportional to ceruloplasmin. In the absence of acute and chronic infection, hepatic cirrhosis, collagen vascular diseases, estrogens, contraceptives and pregnancy, in which the serum copper is increased,¹⁴ an elevated copper can be used as an objective parameter of the activity of Hodgkin's disease in adults,^{7, 8, 11} childhood lymphomas,^{10, 12} and perhaps blast cell activity in leukemias.⁹ Lymphocyte predominant Hodgkin's disease and histiocytic lymphomas (reticulum cell sarcoma) are exceptions. There are several clinical patterns, but patient variability is to be emphasized. In widespread Hodgkin's disease, the serum copper levels fluctuate widely above the normal 70-180 ng/ml units with a precipitous drop below normal at the terminus. With adequate control of the disease activity, there is a downward trend to normal copper levels over time. This is usually rapid, but can be slow. When the serum copper increases in a patient, apparently in remission without any other clinical signs of active disease, all other causes of the elevated copper must be ruled out. If there is no apparent reason for the elevation, then a thorough work-up is indicated to find the recrudescence of Hodgkin's disease. There are exceptions to these patterns and the

TABLE 1
ELECTROLYTES AND TRACE METALS

Test	Value	Tumor or Syndrome	Lab Availability	Reference
Calcium	↑	Metastases to bone	Local	3-6
	↓	"Hypercalcemias of cancer"		
		Ectopic calcitonin	Experimental	
Sodium	↓	Ectopic ADH	Local	
Potassium	↓	Ectopic ACTH	Local	
Copper	↑	Hodgkin's disease	Regional	3,7-14
		lymphoma, leukemia		
Zinc	↓	Bronchogenic carcinoma	Regional	3,14-16
Iron	↓	Non-specific	Local	7,17

TABLE 2
ENZYMES

Test	Value	Tumor or Syndrome	Lab Availability	Reference
Acid phosphatase	↑	Prostate	Local	3
Alkaline Phosphatase				
Heat Stable	↑	Hodgkin's disease Stage I,II	Local	3
		Liver Metastases		
Heat Labile	↑	Osteogenic sarcoma	Local	
		Paget's disease		
Regan Isoenzymes	↑	Oat cell carcinoma of lung, ovary, colon, breast, lymphoma, endometrium, cervix, hepatoma, multiple myeloma	Regional	3,18,19
Leukocyte alkaline phosphatase	↓	Chronic granulocytic leukemia	Regional	3
Lactate dehydrogenase	↑	(In cerebrospinal fluid in metastatic astrocytomas)		
		Non-specific	Local	3
Amylase	↑	Pancreas, salivary gland, lung	Local	3,20
SGOT	↑	Liver metastases	Local	3
SGPT	↑	Liver metastases	Local	3
Trypsin	↑	Inconclusive (pancreas?)	Experimental	3
Leucine-amino peptidase	↑	Biliary obstruction	Regional	3
5' Nucleotidase	↑	Biliary obstruction	Regional	3
Histaminase	↑	Metastatic medullary carcinoma of thyroid	Regional	3,21,22
			Experimental	
Aldolase	↓	Hepatoma (inclusive)	Regional	3
Muramidase	↑	Myelomonocytic leukemia	Regional	7
Phosphohexose isomerase	↑	Bone metastases	Experimental	3
Isocitrate dehydrogenase	↑	Bone metastases	Regional	3
β-glucuronidase	↑	Breast carcinoma (experimental)	Experimental	3

associations do not correlate as well with lymphoma or leukemia. In addition, a normal serum copper does not always indicate satisfactory disease control.⁹⁻¹³ For best use of the serum copper level as an objective parameter of Hodgkin's disease activity, serial determinations are necessary to establish a trend.⁸ The serum copper and sedimentation rate may be used in a complementary fashion with an 80% correlation with disease activity. Others prefer to use the serum copper alone.⁹⁻¹³

The plasma *zinc* level is an intriguing test which has not lived up to its earlier promise.³⁻¹⁵ Originally, it was suggested that the serum zinc was depressed in bronchogenic carcinoma, but efforts to use it as a screening test failed.¹⁶ It is, however, significantly depressed in metastatic broncho-

genic carcinoma, which is usually obvious clinically. Correlation of zinc level to disease activity has not been studied and hopefully may prove to be of value.

The serum *iron* level is elevated in 50% of patients with Hodgkin's disease, but no correlation with therapy is available. It is also elevated in many cancers and chronic diseases. Other trace metals such as cadmium and magnesium, despite the discussion in the literature, have no established correlation with disease.

ENZYMES

While cancer tissues are richer in glycolytic enzymes than normal tissues, there are no universal enzyme indicators of malignant disease. In addition, the biochemical dynamics of the enzyme tests

TABLE 3
BLOOD CELLS AND PROTEINS

Test	Value	Tumor or Syndrome	Lab Availability	Reference
CBC				
*RBC	↑	Erythropoietin producing tumors; Erythropoietin-like activity from fibroids, hepatomas, adrenal cortex, ovary, sarcoma	Local	23
*WBC	↑	Myeloproliferative disorders; eosinophilia in hepatoma, bronchogenic carcinoma, liver metastases	Local	24
*Platelets	↑	Non-specific	Local	7
Sedimentation Rate	↑	Non-specific Hodgkin's disease	Local	7
Total Serum Protein with Electrophoresis				
Albumin		Non-specific	Local	3,18,25,26
*α2 Globulins	↑	Non-specific	Local	
*Gamma Globulins		Plasma cell dyscrasias	Local	
Quantitative Immunoglobulins (IgA, IgG, IgM)	↑	Monoclonal gammopathy in colon, breast, bronchus Multiple myeloma Macroglobulinemia, Lymphoma	Regional	3,18,26
11SIgA	↑	Hepatoma, breast gastrointestinal, genitourinary, lung, nasopharynx	Regional Experimental	27,28
Immuno-electrophoresis		Paraproteins	Regional	18,26
Uric acid	↓	Non-specific	Local	29
Glucose	↓	Insulinoma insulin-like activity (Hodgkin's disease, sarcomas, hepatoma)	Local	30

NOTE: Parenthesis indicates probable but not definite proof.

TABLE 4
HORMONES

Test	Value	Tumor or Syndromes	Lab Availability	Reference
ACTH- MSH	↑	Basophilic adenoma of pituitary; oat cell of lung, non islet cell of pancreas, thymoma, carcinoid, medullary carcinoma of thyroid, prostate, ovary, parotid pheochromocytoma and related tumors. (adrenal cortex, liver, esophagus non-oat cell of lung, hypernephroma)	Regional Experimental	33-66
Gonadotropins *Luteinizing hormone	↑	Choriocarcinomas of the following origin: placenta, ovary, testes and extragenital Hepatoma, reticulo-endothelial tumors, oat cell and non-oat cell of lung, Pheochromocytoma and related tumors. (Mediastinal teratomas, adrenal cortex, melanoma gastrointestinal breast)	Regional	33-39
*FSH, follicle stimulating hormone	↑	Lung	Experimental	
ADH	↑	Oat cell of lung, pancreas duct and islet CNS space lesions affecting posterior pituitary (Duodenum, non-oat cell of lung, carcinoid, thymoma, melanoma)	Experimental	34-36
Parathormone	↑	Parathyroid, oat cell of lung, adenocarcinoma of lung, pancreas duct and islet liver, colon, adrenal cortex, hypernephroma, ovary, pheochromocytoma and related (reticuloendothelial, parotid melanoma, squamous of lung, vagina, uterus, bladder, head and neck squamous, alveolar ridge, vascular, connective tissues and mesodermal tumors)	Regional	5, 33-36 40-42
TSH (thyrotropin)	↑	Carcinoma of pituitary Hydatidiform mole, choriocarcinoma	Regional	33-36
Insulin	↑	islet cell tumors of pancreas (oat cell of lung, carcinoid, pheochromocytoma and related)	Regional	35,36
HGH (Human Growth Hormone)	↑	Eosinophilic adenoma of pituitary Non-oat cell of lung (endometrium)	Regional	34,36
Calcitonin	↑	Medullary carcinoma of thyroid, oat cell of lung (bronchial carcinoid, breast, thymoma, pheochromocytoma and related)	Regional Experimental	5,34,36 43-49



Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

Most Widely Prescribed—Antivert is the most widely prescribed agent for the management of vertigo* associated with cases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.

Relief of Nausea and Vomiting—Antivert/25 can relieve the nausea and vomiting often associated with vertigo*.

Dosage for Vertigo*—The usual adult dosage for Antivert/25 is one tablet t.i.d.

SUMMARY OF PRESCRIBING INFORMATION

INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG 
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert[®]/25 
(meclizine HCl) 25 mg. Tablets
for vertigo*

DYAZIDE[®]

Trademark

Each capsule contains 50 mg. of Dyrenium[®] (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION*

**LOWERS
BLOOD
PRESSURE**

**CONSERVES
POTASSIUM**

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

*** WARNING**

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

*** Indications:** When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

Contraindications: Further use in progressive renal or hepatic dysfunction; hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs. Routine use of diuretics in otherwise healthy pregnancy.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with

cardiac irregularities. It is more likely in severely ill patients with urine volume less than one liter/day, the elderly or diabetics, with suspected or confirmed renal insufficiency. Periodic determinations of serum K^+ should be made. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. The presence of a widened QRS complex or arrhythmia in association with hyperkalemia requires prompt additional therapy. Thiazides are reported to cross the placental barrier and appear in breast milk; fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and other adverse reactions that have occurred in the adult may result. When used in pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spiro-lactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+ . Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium[®] (triamterene, SK&F Co.), and

leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotic to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinuria or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperkalemia and gout, digitalis intoxication (in hyperkalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesia, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules. Single Unit Packages of 100 (intended for institutional use only).

SK&F CO., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation

**TRIAMTERENE CONSERVES POTASSIUM WHILE
HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE**

HPL (Human Placental Lactogen)	↑	Trophoblastic tissue, gonads bronchogenic carcinoma hepatoma, lymphoma, pheochromocytoma and related, carcinoid, leukemia, stomach thyroid and kidney	Regional Experimental	36,39
Prolactin	↑	Eosinophilic adenoma of pituitary Hypernephroma, bronchogenic carcinoma	Regional Experimental	36,39,50
Erythropoietin	↑	Hypernephroma, Wilm's tumor, cerebellar hemangioblastoma, vascular tumors, hepatoma (pheochromocytoma & related, adrenal cortex, connective tissue, non-oat cell of lung, melanoma, gastrointestinal)	Regional	34-36 51-52
Gastrin	↑	Islet cell-non or delta (duodenal carcinoid, oat cell of lung, pheochromocytoma, melanoma)	Regional	36,53,54
Glucagon	↑	α Islet cell of pancreas (oat cell of lung, pheochromocytoma)	Regional Experimental	36,53
VIP (vaso-active intestinal peptide)	↑	Islet cell tumor, squamous cell of lung, pheochromocytoma and related tumors	Experimental	53,55
GIP (gastric inhibitory polypeptide)	↑	Islet cell tumor (duodenal) carcinoid, pheochromocytoma)	Experimental	53,56
Secretin		Islet and ductal tumors of the pancreas (pheochromocytoma)	Regional Experimental	36
Serotonin	↑	Carcinoid, oat cell of lung, non islet cell of pancreas, medullary carcinoma of thyroid pancreatic ductal (stomach, duodenum, non-oat cell of lung, hepatoma, pheochromocytoma)	Regional	36,53,57
Histamine	↑	Carcinoid, chronic myelogenous leukemia Mast cell leukemia	Regional	36
Renin	↑	Renal hemangiopericytoma Hypernephroma, Wilm's (oat cell of lung, vascular)	Regional	36,58-60
"ILA" (insulin-like activity)	↑	adrenal cortex, non-oat cell of lung, gastrointestinal, pheochromocytoma, connective tissue and mesodermal	Experimental	34,36,61,62
"CRF-like" (corticotrophic releasing factor)	↑	Oat cell of lung pancreas	Experimental	34,63
Prostaglandins				
*E2, F2α		Medullary carcinoma thyroid	Experimental	5,21,64
*ABE		Medullary carcinoma thyroid	Experimental	
*A		Renal cell carcinoma	Experimental	6

NOTE: Parenthesis means tumors which have not definitely been documented.

themselves are not well understood and the enzyme determinations lack specificity. Still their application to the diagnosis and management of patients with cancer can be most useful.

The *acid phosphatase* is one of the most specific tumor indicators. It is elevated in 75% of disseminated adenocarcinoma of the prostate and in 25% before it spreads past the capsule. Laboratory techniques in the determination of acid phosphatase vary, but a prostatic specific acid phosphatase substrate is available. False positive elevations are occasionally seen in benign prostatic hypertrophy, prostatic massage, prostatic infarction and even 48 hours after rectal examination. It is also elevated in some leukemias, myeloproliferative diseases and perhaps occasional other carcinomas.

Alkaline phosphatase values are also very

dependent on laboratory techniques in determining which fraction of alkaline phosphatase is reported. For medical services, the test is performed at 50° C. to obtain the heat stable and heat labile fractions; in obstetrics, it is performed at 60° C. to determine the placental alkaline phosphatase, which is indistinguishable from the *Regan isoenzyme* produced by many cancers. The *Regan isoenzyme* has been detected in 5% of all tumors, but is most notably increased in oat cell carcinoma of the lung; its usefulness has not been determined. The *heat stable fraction of the alkaline phosphatase* is elevated in early stages of Hodgkin's disease, but is not a satisfactory parameter of therapy; it is more important as a reliable indicator of biliary obstruction from an expanding process in the liver, i.e., tumor or proliferation of bile duct canaliculi. When both the alkaline phosphatase and the

TABLE 5
ANTIGENS AND ANTIBODIES

Test	Value	Tumor or Syndrome	Lab Availability	Reference
Alpha Feto-protein (AFP)	↑	Hepatoma, teratoblastoma cholangiocellular carcinoma, liver metastases from pancreas and stomach	Regional	3,18,27 67-72
Hepatitis associated antigen (HAA)	↑	Hepatoma	Regional	27,73,74
Carcino-embryonic antigen (CEA)		Bowel, lung, breast kidney, pancreas neuroblastoma, bladder ovary	Regional	3,18,27 75-100
Oncofetal antigen for human pancreas	↑	Pancreas	Experimental	101
Alpha 2-H-fetoprotein	↑	(Teratomas, kidney brain, liver, reticulo- endothelial)	Experimental	18,67
Gamnia feto-protein antigen		Inconclusive	Experimental	18
T-globulin		Non-specific	Experimental	18
Fetalsulfo-glycoprotein antigen (FSA)	↑	Gastric carcinoma	Experimental	18
Antibody to Epstein-Barr virus	↑	Burkitt's lymphoma Nasopharyngeal carcinoma	Experimental Regional	18
Antibody to:		Neuroblastoma	Experimental	18
		Adenocarcinoma of digestive system		18
		Malignant lymphoma		18
		Sarcoma antigen		18,102,103,104
		Bladder		18
		Ocular melanoma		105
Polyamines (Spermadine putrescine)	↑	Non-specific	Experimental	64,99,106

leucine aminopeptidase are elevated the likelihood of hepatobiliary involvement is 80%. The *heat labile fraction of the alkaline phosphatase* is particularly useful as a parameter of osteoblastic bone activity. It is elevated in osteogenic sarcoma and Paget's disease, sometimes on the order of forty times normal. It has not been used in monitoring therapy. The enzymes, such as phosphohexose isomerase and isocitrate dehydrogenase, which reflect bone metastases, have not established their usefulness. Urinary hydroxyproline excretion remains useful, but not in early diagnosis of bony metastases.

The *leukocyte alkaline phosphatase* is usually depressed in chronic granulocytic leukemia. It is elevated in 25% of patients with Hodgkin's disease. Serum muramidase is increased in myelomonocytic leukemia and in chronic myelogenous leukemia, but no correlation with solid tumors is available.

Lactate dehydrogenase, (LDH), is elevated non-specifically, in many cancers. Only in cerebrospinal fluid LDH determinations is specificity achieved; levels greater than 1000 units/ml, usually indicate metastatic astrocytoma.³ In the blood, LDH isoenzymes have been extensively investigated, but no clinical correlation has been found.

Serum *amylase* is elevated in 25% of pancreatic tumors. Hyperamylasemia is also seen in salivary gland tumors and perhaps metastatic carcinoma of the lung.²⁰ Iso-enzymes have been developed to differentiate salivary gland amylase from that of pancreas, but they are not generally available.

Liver metastases cause elevations in both *SGOT* and *SGPT*, which are considered to be about the same in specificity. In addition to the heat stable alkaline phosphatase and the leucine aminopeptidase, the *5' nucleotidase* also reflects biliary obstruction.

Newer experimental enzymes are not readily available. The *amino acid naphthyl amidase* is elevated in experimental choriocarcinoma. The *glucuronidase* is increased in experimental breast carcinoma. *Plasma histaminase* is the more promising new enzyme on the horizon. Histaminase is an enzyme that catalyzes the oxidative deamination of histamine. It is elevated in metastatic medullary carcinoma of the thyroid, but is normal in medullary carcinoma of the thyroid that has not metastasized.^{3, 21, 22} Attempts to monitor with therapy have been made and correlation with surgical therapy and recurrence of disease appears promising.²¹

Down Memory Lane

1. A restrictive law that must be handled with gloves is the prohibition law.

2. We have school districts, drainage districts, irrigation districts — why not have community hospital districts?

3. The next annual meeting is to be held in Lincoln, May 10, 11, 12 at the new Lincoln Hotel.

4. Senate File No. 61, the Basic Science Bill, passed the Senate March 17, by a vote of 26 to 6, which looks very encouraging; but let no one be deceived into inactivity, for there are 100 members in the house and there is a real fight ahead.

5. The second or third physician who attends a patient is too frequently the starting point of a malpractice suit.

6. Confusion of light scarlet fever and so-called German measles is reported from several sections of the state. It appears to be hard to differentiate the particular form prevailing this season.

7. The Wise Memorial hospital has been remodeled at an expense of \$50,000.

8. The man of today, the ultraconservative, unless he arouses from his seemingly stupid state of indifference, within a few years will find himself so far behind that he will have to strain his ear to catch the far faint murmur of the whirling propeller of progress, carrying us fearlessly forward into broader fields of usefulness where disease is less and less known.

9. My father practiced medicine for many years before the advent of antiseptic surgery, and succeeded his father who had also practiced many years; my grandfather told my father that the man who was scrupulously clean in personal habits and carried that cleanliness into the delivery room but seldom has a case of puerperal fever while the man who was careless had constant cases of "childbed fever."

10. At one time practically every cross-road had its doctor and his range was limited by the travelling power of his horse, a radius of probably ten miles at most.

Nebraska State Medical Journal
April, 1927

PRESIDENT'S PAGE

UNITY

"There is strength through unity" is a frequently quoted axiom. Conversely, "divide and conquer" is an axiom of warfare that dates back into history. The politician and the bureaucrat respect the former and adopt the latter as a means to an end in this day and age.

During the past two years, serving as President-elect and then President of the Nebraska Medical Association, I have attempted to stress the concept of unity. Physicians find this concept difficult to put into practice. The education of a physician stresses individualism and competition. Through high school, college, and medical school, the philosophy of individual endeavor remains foremost. This concept continues through postgraduate training and into the early years of establishing a private practice in medicine. Except for a team approach in providing medical care for the patient, there is little thought of uniting with colleagues in furthering political or legislative goals.

The rules and regulations of our governmental bureaucracy exert their effect on the private practitioner within a few weeks after he has opened his office. Incomprehension is often followed by a period of frustration. Unfortunately, some take the attitude that the future is predestined, and that willing compliance is mandatory for survival.

Fortunately, there are many physicians who now feel that the future is not predetermined. By working together within their specialty organizations, they are able to effect change beneficial to their specialty and to medicine. However, the individual specialty organizations have a rather weak voice. Furthermore, the ophthalmologist must be prevailed upon to come to the assistance of the orthopedist. The joking comment of the surgeon or internist of "look what they're doing to the anesthesiologist now?" is still too frequently heard. Many of our colleagues are still not convinced that what happens to the psychiatrist today will affect the pathologist tomorrow and the family physician next week. Many of us condone the activities of the optometrist rather than offer referral to



an ophthalmologist, utilize the services of a lay-laboratory rather than the consultative services of a pathologist, and suggest the therapy provided by the podiatrist in lieu of referral to an orthopedist. We still have not evoked a spirit of full unity in the practice of medicine among physicians throughout this country. We have made progress but it is quite evident, that even with the progress toward unity that has been accomplished, the physicians in this country are still a small voice in the so-called "health care industry."

During 1976, more Nebraska physicians entered the political arena than ever before. It is recognized that their activities were effective and constructive. Such political activity has become an added necessary ingredient in the practice of medicine. Physicians must remain active in politics in order to protect their patients and the character of their practice. Such activity will affect the welfare of the patient of tomorrow to the same extent as the clinical management prescribed for the patient. To accomplish such, the spirit of unity and cooperation must prevail. Let more of us put aside some of our independence and egotism and unite with our fellow physicians in all aspects of our medical practice including our recently adopted political facet as we monitor current legislative activities and focus on the 1978 elections.

Will it be "divide and conquer?" Let us adopt "STRENGTH THROUGH UNITY" as our axiom and watch the results.



The Auxiliary

SCHOOL HEALTH EDUCATION CURRICULUM PROJECT

Better known as the Berkeley Project for its place of origin, a pilot session of this program was attended in a sixth grade class in Wahoo, Nebraska, by six officers of the Auxiliary from Hastings, Grand Island and Lincoln. A multimedia approach to health education, programs have currently been written for grades four through seven and are being developed for grades one through three. Each grade features a different area of specialization with respect to the body. Beginning with the fourth is the digestive system followed in succeeding grades by the respiratory, cardiovascular, and brain/nervous systems.

The format consists of an introduction, five phases, and a culmination (summary). The introduction may present models or objects and is designed to arouse curiosity. Phase I is awareness of the body's nine systems. Basically an overview, nothing is discussed in detail. Drawings and charts done by the students stimulate interest. Phase II is the

appreciation phase. Emphasis is put on only one body system. Phase III is the study of the structure and function of a particular organ of the body. Some dissection is employed. Phase IV studies disease and disorders. Phase V is prevention.

The uniqueness of this program results because multimedia presentation is used in small groups. A child learns the number of bones in the body by counting them on a small model of a skeleton. The relationship of the body organs to one another is seen by taking them from a model of a torso. Children are grouped to learn at their own rate of speed and level of ability. The textbooks which come with the course contain reading materials from Grade two to ten.

What are the goals of this project? Awareness of the nine body systems and how they are dependent on one another, the risk factors associated with disease, and a sense of respect for the composition of the human body which results in a feeling of responsibility for personal health.

Dr. Kerry Redican has been training teams to teach this curriculum for four years. For further information or to arrange a speaking date his address is Nebraska Center for Health Education, 501 Building, U of N, Lincoln.



Helen L. Hayes, (Mrs. O. R.)
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Between Cases

Heard On TV.

He has great speed, but he has great quickness as well.

Tranquil.

It is said that the effect of eating of too much lettuce is soporific.

B. Potter: The tale of the flopsy bunnies.

On Music.

Beethoven always sounds to me like the upsetting of a bag of nails, with here and there an also dropped hammer.

Ruskin

Section On Vegetables.

Raw cucumber makes the churchyards prosperous.

English proverb, 16th century.

Quote Unquote.

Victims of the same disease have much to talk about.

Japanese proverb.

Words I Can Do Without.

In and of itself, per se, as such, this and that.

I Read It Somewhere.

When the cosmonauts landed, they were unable to stand, but medical tests showed their bodies had undergone no significant changes.

On Doctors Everywhere.

Doctors have one sacred principle: the patient must never be frightened, he must be encouraged.

Solzhenitsyn: Cancer ward.

—F.C.

Our Medical Schools

Seminars & courses: U of N.

1. Two courses will be offered at the Center for Continuing Education at the University of Nebraska Medical Center in May.

On May 12 and 13, the annual course on Diabetes Mellitus will be presented.

Guest faculty includes Dr. Buris Boshell, director, diabetes research and Education Hospital, and chief, division of endocrinology and metabolism, University of Alabama Hospitals and Clinics, Birmingham. Dr. Thomas F. Gallagher, associate professor of internal medicine, is a coordinator of the course.

Registration fee of \$70 for physicians and \$45 for other health professionals covers luncheons and coffee breaks.

Electrocardiography and arrhythmia management will be the subject of a course May

26 and 27. Individual tutorial sessions will feature analysis of electrocardiograms and treatment with a cardiologist.

Dr. Alan Forker, associate professor of internal medicine, is coordinator of the course sponsored by the Medical Center's Cardiovascular Center.

The Registration fee of \$70 for physicians and \$45 for other health professionals includes lunches.

2. Seminars on emergency medicine will be offered at the Medical Center and at three other locations.

At the Memorial Hospital of Dodge County in Fremont, Nebraska, surgery will be the topic of an April 12 seminar; cardiology, the subject of an April 26 program; and orthopedics, the subject of a May 17, program. Dr. James Bridges is the coordinator in Fremont.



DOCTORS ARE TALKING ABOUT THE PRACTICAL WAY TO LOWER CHOLESTEROL

Choloxin® (Sodium Dextrothyroxine)

For good reasons. Diet alone doesn't always work. CHOLOXIN® (sodium dextrothyroxine) has proved itself to be an effective cholesterol lowering adjunct to diet in euthyroid, non-cardiac patients. It has undergone ten years of clinical trials and eight years of practice. The clinical trials consisted of 17 clinical studies involving over 3,000 hypercholesterolemic non-cardiac patients. It is among the most thoroughly evaluated drugs ever presented to physicians.

Practical, too, is the one-tablet-a-day dosage regimen. It encourages patient cooperation, and is economical for long-term therapy.

CHOLOXIN (sodium dextrothyroxine) lowers cholesterol 15% to 35%, and keeps it down with most patients. (*Data on file, Flint Laboratories*).

Interested in receiving more information about lipid lowering? Write us or contact your Flint representative. We'll be glad to supply you with a complete product portfolio and samples for your evaluation.

NOTE: See following page for full prescribing information.

AN IMPORTANT NOTE:

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.



FLINT LABORATORIES

DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

Choloxin® (Sodium Dextrothyroxine)

Effectively Lowers Elevated Cholesterol With Convenient Once-A-Day Dosage

Four strengths 1, 2, 4, and 6 mg are available making the scored tablet regimen a flexible dosage system. And for most patients CHOLOXIN tablets offer once-a-day dosage.

CHOLOXIN® (sodium dextrothyroxine) Single-Tablet-A-Day Dosage Schedules

See prescribing information in package insert reproduced below.

	Starting Dosage	Increased Monthly by	Usual Maintenance	Maximal Recommend
Adult Hypercholesterolemic	1.0-2.0 mg.	1.0-2.0 mg.	4.0-8.0 mg.	4.0-8.0 mg.
Pediatric Hypercholesterolemic	0.05 mg./kg. body weight	0.05 mg./kg.	0.1 mg./kg. body weight	4.0 mg.
Hypothyroid Cardiac	1.0 mg.	1.0 mg.	4.0 mg.	4.0 mg.

Choloxin® (Sodium Dextrothyroxine)

Description

CHOLOXIN (sodium dextrothyroxine) is the sodium salt of the dextrorotatory isomer of thyroxine. It is chemically described as D-3,5,3',5'-tetraiodothyronine sodium salt.

Actions

The predominant effect of CHOLOXIN (sodium dextrothyroxine) is the reduction of serum cholesterol levels in hyperlipidemic patients. Beta lipoprotein and triglyceride fractions may also be reduced from previously elevated levels.

Most of the available evidence indicates that CHOLOXIN (sodium dextrothyroxine) stimulates the liver to increase catabolism and excretion of cholesterol and its degradation products via the biliary route into the feces. Cholesterol synthesis is not inhibited and abnormal metabolic end-products do not accumulate in the blood.

Indications

This is not an innocuous drug. Strict attention should be paid to the indications and contraindications.

CHOLOXIN (sodium dextrothyroxine) is an antilipidemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease.

The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication.

Before prescribing, note the following: Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation. There may be an additive effect. This additive effect may possibly stimulate the myocardium excessively, in patients with significant myocardial impairment. CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly. Careful monitoring of the total effect of both drugs is important.

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Contraindications

The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated:

1. Known organic heart disease, including angina pectoris; history of myocardial infarction; cardiac arrhythmia or tachycardia, either active or in patients with demonstrated propensity for arrhythmias; rheumatic heart disease; history of congestive heart failure; and decompensated or borderline compensated cardiac status.
2. Hypertensive states (other than mild, labile systolic hypertension).
3. Advanced liver or kidney disease.
4. Pregnancy.

5. Nursing mothers.
6. History of iodism.

Warnings

CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time. Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment.

In the surgical patient, it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated.

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease, treatment should be initiated with care. Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required. This drug may increase the oxygen requirements of the myocardium, especially at high dosage levels. Treated subjects with coronary artery disease must be seen at frequent intervals. If aggravation of angina or increased myocardial ischemia, cardiac failure, or clinically significant arrhythmia develops during the treatment of hypothyroid patients, the dosage should be reduced or the drug discontinued.

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine). As with all thyroidactive drugs, hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients.

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency. This condition may be enhanced in patients receiving thyroid analogues. These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease.

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones, it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation. During emergency surgery in euthyroid patients, and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy, the patients should be carefully observed.

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents. Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs. If sodium dextrothyroxine is later withdrawn from

patients who had required an increase of insulin (or oral hypoglycemic agents) dosage during its administration, the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state.

When either or both impaired liver or kidney function are present, the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results.

Usage in Women of Childbearing Age

Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug; it can be given to those patients exercising strict birth control procedures. Since pregnancy may occur despite the use of birth control procedures, administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother. Teratogenic studies in two animal species have resulted in no abnormalities in the offspring.

Precautions

It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein-bound-iodine levels. These increased serum PBI values are evidence of absorption and transport of the drug, and should NOT be interpreted as evidence of hypermetabolism; similarly, they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine). PBI values in the range of 10 to 25 mcg% in treated patients are common. If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy, the drug should be discontinued.

A few children with familial hypercholesterolemia have been treated with CHOLOXIN for periods of one year or longer with no adverse effects on growth. However, it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol-lowering effect is observed.

Adverse Reactions

The side effects attributed to dextrothyroxine therapy are, for the most part, due to increased metabolism, and may be minimized by following the recommended dosage schedule. Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease; the incidence of adverse effects is increased in hypothyroid patients, and is highest in those patients with organic heart disease superimposed on the hypothyroid state.

In the absence of known organic heart disease, some cardiac changes may be precipitated during sodium dextrothyroxine therapy. In addition to angina pectoris, arrhythmia consisting of extrasystoles, ectopic beats, or supraventricular tachycardia, ECG evidence of ischemic myocardial changes and increase in heart size have been observed. Myocardial infarctions, both fatal and non-fatal, have occurred, but these are not unexpected in untreated patients in the age groups studied. It is not known whether any of these infarcts were drug related.

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia, nervousness, palpitations, tremors, loss of weight, lid lag, sweating, flushing, hyperthermia, hair loss, diuresis, and menstrual irregularities. Gas-

trointestinal complaints during therapy have included dyspepsia, nausea and vomiting, constipation, diarrhea, and decrease in appetite.

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease), hoarseness, tinnitus, dizziness, peripheral edema, malaise, tiredness, visual disturbances, psychic changes, paresthesia, muscle pain, and various bizarre subjective complaints. Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine by some investigators. Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient, although its relationship to CHOLOXIN therapy was not established.

In several instances, the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine); a worsening of peripheral vascular disease, sensorimotor, exophthalmos, and retinopathy have been reported.

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants, such as warfarin or Dicumarol, on prothrombin time, thus indicating a decrease in the dosage requirements of the anticoagulants. On the other hand, dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section).

Dosage and Administration

For adult euthyroid hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day. The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, if that dosage level is indicated to effect the desired lowering of serum cholesterol.

When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication, the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, preferably the lower dosage. The maximum in patients receiving digitalis therapy is 4 mg.

For pediatric hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0.1 mg (100 mcg) per kilogram. The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals. The recommended maximal dose is 4 mg daily, if that dosage is indicated to effect the desired lowering of serum cholesterol.

If new signs or symptoms of cardiac disease develop during the treatment period, the drug should be withdrawn.

How Supplied

CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1, 2, 4, and 6 mg tablets.



FLINT LABORATORIES
DIVISION OF TRAVCO, LABORATORIES, INC.
Deerfield, Illinois 60015

At the American Legion Country Club in Shenandoah, Iowa, Dr. Kenneth Gee is coordinator of programs April 13 (surgery); May 4 (cardiology); and May 25 (orthopedics).

Dr. Joseph Spearing is coordinator of the courses at Michel's Restaurant at Harlan, Iowa, when the topics will be surgery, April 14; cardiology, May 5; and orthopedics, June 2.

A skills workshop will be held at the Medical Center Wednesday, June 15.

Tuition and registration fees are provided by an educational grant from the Health

Planning Council of the Midlands, however, a viand charge of \$7 per session (\$28 for all four sessions) will be required to cover meals and coffee.

The dates have been set for this year's annual Family Practice Review. It will again be offered at two times: September 12 through 23 and October 3 through 14.

Dr. Margaret Faithe, assistant dean for continuing medical education, is coordinator of the course.

The fee of \$575 covers breakfasts, lunches, and a banquet.

Welcome New Members

Deborah A. Adkins, M.D.
555 North 30
Boys Town Institute
Omaha, Nebraska 68131

Ronald L. Asher, M.D.
1214 West "A"
North Platte, Nebraska 69101

Martin H. Bierman, M.D.
Creighton University School of Medicine
10th & Castelar
Omaha, Nebraska 68178

W. Carl Boelter, II, M.D.
8023 Dodge Street
Omaha, Nebraska 68114

Robert T. Byington, M.D.
600 North Cotner
Lincoln, Nebraska 68505

Jim Campbell, M.D.
4339 North 65th Street
Omaha, Nebraska 68104

Frederick Catlett, M.D.
606 North Minnesota
Hastings, Nebraska 68901

Michael M. Collins, M.D.
8111 West Center Road
Omaha, Nebraska 68124

Jane B. Dahlke, M.D.
Nebraska Psychiatric Institute
Omaha, Nebraska 68106

Robert J. Fonda, M.D.
8601 West Dodge Road, #148
Omaha, Nebraska 68114

Richard G. Gelwick, M.D.
7610 Fairfax
Lincoln, Nebraska 68505

Terry Haney, M.D.
West Nebraska General Hospital
Scottsbluff, Nebraska 69361

Melvin Hoffman, M.D.
600 North Cotner, #200
Lincoln, Nebraska 68505

Richard A. Hranac, M.D.
17 West 31st Street
Kearney, Nebraska 68847

John A. Luckasen, M.D.
701 Doctors Building
Omaha, Nebraska 68131

William C. Minier, M.D.
8258 Hascall Street
Omaha, Nebraska 68124

Sam E. Moessner, M.D.
Memorial Hospital of Dodge County
Fremont, Nebraska 68025

Troy O. Morgan, M.D.
University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Khawar Muneer, M.D.
Veterans Hospital
Grand Island, Nebraska 68801

William P. Nelson, M.D.
University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Charles L. Paxson, M.D.
University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Samuel H. Perry, II, M.D.
102 South Elm
North Platte, Nebraska 69101

Hartmut H. Peter, M.D.
Clarkson Hospital
Omaha, Nebraska 68105

Tuong Do Pham, M.D.
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Omaha, Nebraska 68105

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Scottsbluff, Nebraska 69361

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Lincoln, Nebraska 68505

Richard M. Tempero, M.D.
209 North 89th Street
Omaha, Nebraska 68114

Khang Van Tran, M.D.
Box 67
Sutherland, Nebraska 69165

James L. Werth, M.D.
University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

REINSTATED MEMBERS — MARCH, 1977

J. W. Bengtson, M.D.
Box 81009
Lincoln, Nebraska 68501

Allan J. Hruby, M.D.
3169 Leavenworth
Omaha, Nebraska 68105

WashingtonNotes

Hospital costs.

The Carter administration has asked Congress to approve a "permanent hospital cost containment system" that would cover all hospital operations, private as well as governmental.

Recommended in the revised budget prepared by the Administration is a limit of about 9 percent on increases in reimbursement for operating costs per admission for each hospital for the fiscal year that starts Oct. 1.

Other features of the plan "to contain the continued rapid and disturbing rise in the cost of health care" included:

waiver for states with acceptable hospital rate review programs.

separate controls on hospital outpatient departments, to encourage alternatives to inpatient care.

federal programs to encourage additional cost containment activities such as second opinion before surgery, preadmission review for nonemergency hospital care, etc.

monitoring for federal compliance, primarily using data already reported by hospitals for other programs, such as Medicare and Medicaid. Hospitals found in violation of reimbursement ceilings in any year could "repay" excesses by reducing charges or reimbursement increases in future years. Civil and criminal penalties would be included to combat fraud and abuse.

Under the proposal, the HEW Secretary would appoint a National Advisory Committee "of broad representation" to help determine future trends in spending for hospital care.

Despite the sweeping scope of the proposal, covering private expenditures as well as those under federal programs, Califano denied the plan represented a return to the wage-price freeze system of several years ago.

Asked why physician fees were not covered, the HEW Secretary said his department

is taking "one step at a time." Califano said "we will be looking at that to see what should be done."

John Alexander McMahon, President of the American Hospital Association, immediately declared that any program that sets an arbitrary limit on one segment of the economy while ignoring the rest is "inequitable, unworkable, and may well be counterproductive."

The Federation of American Hospitals called the plan "unrealistic and unfair," John A. Bradley, FAH President said, "The goal is laudable but legislation imposing controls on prices without controls on wages and supplies is unrealistic and unfair. The proposal is a retread of President Nixon's Phase IV control program and it is inconsistent with President Carter's policy against wage-price controls as well as his desire to reduce the growth of government."

The military medical school.

The Carter Administration has announced plans to write off the military medical school as a \$50 million mistake.

The surprise decision came as the military medical school was midway through its first year of operation with 32 students and construction of a building was well along on the grounds of the Bethesda Naval Medical Center near Washington, D.C.

The school has been opposed by the AMA since Congress considered the proposal in 1972.

NHI.

The national health insurance problem facing the Carter administration was bluntly stated by the Congressional Budget Office in its annual report. A plan fully financed by taxes, as labor proposes, would use most of the money available for new programs, "and would most likely require compensating reductions in other federal programs or tax increases above current policy levels." The budget office, which helps guide and deter-

mine Congress' spending and legislative plans, put the 1982 cost of such an NHI plan at a minimum of \$108 billion.

New VA head.

President Carter has nominated a Vietnam war veteran, Max Cleland, 34, to head the Veterans Administration. Cleland lost two legs and an arm from a grenade explosion in battle. In 1971 he became the youngest member of the Georgia Legislature.

The appointment was seen as a victory for the younger Vietnam veterans groups who have urged one of their own be appointed.

PEs.

The government is moving on two fronts to encourage the use of physician extenders (PEs) in rural areas.

The Social Security Administration has launched an experimental program to reimburse physicians for independent medical services provided Medicare beneficiaries by physician extenders. Previous policy had been to reimburse physicians for PE Medicare Part B services only those incident to a physician's services and performed under the

direct supervision of the physician. The new policy will permit payment for the independent services of physician's assistants, nurse practitioners, medex, and similar non-physician health care providers. The reimbursement will be made only to a physician extender's employer, not to the PE directly.

FMGs.

The State and Justice Departments, heeding the plight of hard-pressed hospitals, have agreed to a one-year waiver of new restrictions on admissions of "exchange visitor" foreign medical graduates. The waiver was requested by the HEW Department. Congress had signalled its agreement with the relaxation of requirements in the health manpower bill approved last year.

Hospitals had complained that the new restrictions, if implemented, would have slashed staffs of hospitals dependent on FMGs. The law's requirement that residence in this country is limited to two years with a third year on approval was not waived. Since more than half of FMG residents are on immigrant status rather than exchange visitors, hospitals fear FMG staffs will be depleted anyway.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS

April 23 — Hartington — Trinity Lutheran Church

May 7 — Ainsworth — Elementary Grade School

May 21 — North Platte — Elks Lodge

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

INDIANA CHAPTER ACEP-EDNA EMERGENCY MEDICINE SEMINAR will be held at the Airport Hilton Inn, Indianapolis, Indiana on May 11 through May 14, 1977. CME Credits Applied For: 20 hours; Co-sponsor: Indiana University School of Medicine. Fee: \$50.00 - \$100.00. Contact:

David Gettle, M.D., 10005 Hillsdale, Carmel, Indiana 46032, 317-844-7105. Note: This seminar is in conjunction with the first day of Time Trials for the Indianapolis 500 Memorial Day Race.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, Fairmont Hotel, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family

Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

NEBRASKA MEDICAL ASSOCIATION
FALL SESSION — September 29 & 30,
October 1, 1977, Lincoln Hilton Hotel,
Lincoln, Nebraska.

45TH ANNUAL POSTGRADUATE ASSEMBLY, Omaha Mid-West Clinical Society; Omaha Hilton Hotel; October 31, November 1 and 2, 1977. For information contact: Janet S. Noll, Executive Secretary, Omaha Mid-West Clinical Society, 540 Medical Arts Building — 402-345/7146, Omaha, Nebraska 68102.

AMERICAN MEDICAL ASSOCIATION —
Interim Session, House of Delegates,
December 4-7, 1977, Palmer House, Chicago, Illinois.

AMERICAN MEDICAL ASSOCIATION —
Winter Scientific Program, December 10-13, 1977, Miami, Florida.

COLONOSCOPY TRAINING PROGRAM —
The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

Books



Cardiac emergencies; edited by Robert S. Eliot, M.D.; associate editors Gerald L. Wolf, M.D. and Alan D. Forker, M.D.; 375 pages; published 1977 by Futura Publishing Company, Mount Kisco, N.Y.

Cardiac emergencies is volume 3 of *Contemporary problems in cardiology*. It is divided into 3 sections, and further into 18 chapters. It was written by 45 contributors. It is studded with figures and tables and

has a good index. Its contributors are in California, Kentucky, Kansas, and Nebraska.

The sections are titled pathophysiology, diagnosis, and management, and the names of the chapters are themselves evidence of the value of this book to the practicing physician, such as prehospital management of acute myocardial infarction, the pathophysiology of congestive heart failure, the value of echocardiography in cardiac emergencies, and drug management of hypertensive emergencies.

It is well written, the type is good, and there are many references. It is a book we have needed, it is well done, and it is recommended.

—F.C.

Medicines

Gift to Health Galleries.

A \$10,000 gift honoring the late Dr. E. Burkett Reed of Lincoln will provide the newly designed Health Galleries of the University of Nebraska State Museum with a teaching area showing the human blood system.

The donors of the gift are the physicians of Lincoln Clinic, with which Dr. Reed was associated.

The contribution was made as part of the fund drive now being conducted for the Health Galleries by the Women's Auxiliary of the Nebraska Medical Association.

Before his death in April, 1976, Dr. Reed, who specialized in hematology, selected the exhibit for construction in Morrill Hall on the University's Lincoln campus.

The late Dr. Reed, who earned his medical degree in 1925 from the University, was chief of staff at Bryan Memorial Hospital from 1957-1959 and past president of the Lancaster County Medical Society. He was a fellow of the American College of Physicians and medical director for Midwest Life Insurance Company.



Dr. E. Burkett Reed

U.S. medical schools.

1974-1975 1975-1976

Total enrollment.....	54,074	56,244
First-year enrollment	14,963	15,351
Graduates	12,714	13,561
Women enrolled	9,786	11,527

There were 42,303 applicants in 1975-1976, so that more than 36 percent of those who applied were admitted.

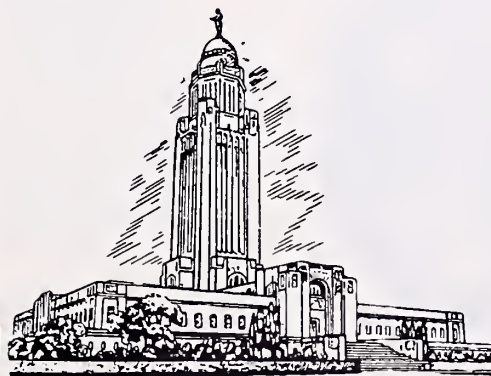
109TH
ANNUAL
SESSION

THE
NEBRASKA
MEDICAL
ASSOCIATION



MAY 1-4, 1977

HOLIDAY INN
3321 South 72nd Street
OMAHA, NEBRASKA



109TH ANNUAL SESSION NEBRASKA MEDICAL ASSOCIATION

PURPOSE:

To advance the science and art of medicine and to evaluate the standards of medical education, meetings of the Annual Session shall be devoted to scientific work of the members.

OBJECTIVES:

1. To review the diagnosis and treatment of Gastrointestinal Hemorrhage.
2. To provide physicians with information on suicide and suicide prevention.
3. To present new concepts in the diagnosis and treatment of several disease entities.
4. To provide an opportunity for physicians to select areas of interest for study and to interact with fellow colleagues.

SPONSORSHIP:

The meeting is sponsored by the Nebraska Medical Association in cooperation with the University of Nebraska College of Medicine and Creighton University School of Medicine.

CREDIT:

The program is acceptable for 7¼ prescribed hours by the American Academy of Family Physicians.

The University of Nebraska College of Medicine and Creighton University School of Medicine certify that this continuing medical education offering meets the criteria for 7 hours of credit in Category I of the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designed.



OF SPECIAL INTEREST

REGISTRATION — High-Rise Foyer, Holiday Inn of Omaha, 8:00 a.m., Monday, Tuesday and Wednesday, May 2, 3 and 4, 1977.

GENERAL SESSIONS — Documents Room, Holiday Inn of Omaha.

MEDICINE AND RELIGION DINNER — Sunday, May 1, 7:00 p.m., Empire Rooms A, B and C, Holiday Inn of Omaha. "The Physician and The Dying," Ned H. Cassem, M.D., Associate Professor of Psychiatry, Harvard Medical School, Boston, Massachusetts. Edward A. Holyoke, Jr., M.D., Chairman.

ATHLETIC MEDICINE LUNCHEON — Tuesday, May 3, 12:00 noon, Caucus Room, Holiday Inn of Omaha. "A Life of Fulfillment in Sports and Medicine," Mr. Jesse Owens, Phoenix, Arizona. John E. Murphy, M.D., Chairman.

PRESIDENT'S RECEPTION — Honoring the President of the Nebraska Medical Association and the President of the Nebraska Medical Association Auxiliary. Tuesday, May 3, 6:00 p.m., aboard the Belle of Brownville.

FUN NIGHT — A superb dinner at the Bellevue Queen Restaurant with entertainment provided by the "Strolling Strings." Followed by a cruise on the Missouri River, aboard the Belle of Brownville. "Bourbon Street" will entertain. The President's Reception will immediately precede the dinner. Tuesday, May 3, 7:00 p.m. John J. Hoelsing, M.D., Chairman.

PAST PRESIDENT'S BREAKFAST — Wednesday, May 4, 7:00 a.m., State Room, Holiday Inn of Omaha.

ANNUAL DISTINGUISHED LUNCHEON — Installation of Arnold W. Lempka, M.D. Recognition of Fifty-Year Practitioners. Frank H. Tanner Memorial Lecture delivered by Richard E. Palmer, M.D., President of the American Medical Association, Alexandria, Virginia. Wednesday, May 4, 12:00 noon, Caucus and Documents Rooms, Holiday Inn of Omaha.

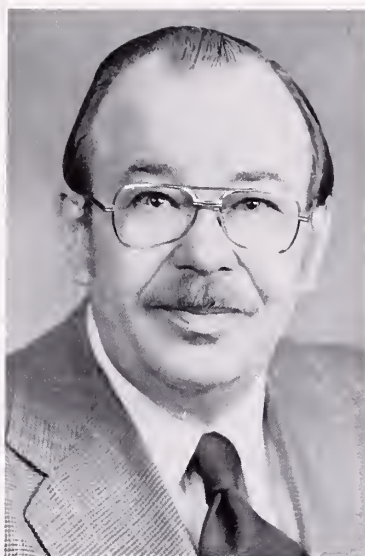
SPORTSMAN'S DAY ACTIVITIES

GOLF TOURNAMENT — Highland Country Club, 128th and Pacific, Omaha, Monday, May 2. Tee Off times, 11:30 a.m. to 1:30 p.m. Participation by pre-registration only. R. W. Olnhausen, M.D. and Russell E. Beran, M.D., Co-Chairmen.

TENNIS — Hanscom Brandeis Tennis Center, 3200 Ed Creighton Avenue, Omaha, Monday, May 2, 12:00 noon. Participation by preregistration only. Daniel G. Bohi, M.D. and John C. Sage, M.D., Co-Chairmen.

TRAP SHOOT — Harry A. Koch Trap and Skeet Range, 6802 Harrison Street, Omaha, Monday, May 2, 1:30 p.m. Participation by preregistration only. Kenneth E. Pletcher, M.D., Chairman.

SPORTSMAN'S ANNUAL AWARD DINNER — Highland Country Club, 128th and Pacific, Omaha, Monday, May 2. Social Hour at 6:00 p.m. Sportsman's Annual Award Dinner at 7:30 p.m. C. Thomas Frank, M.D. and Eugene M. Zweiback, M.D., Co-Chairmen.



HARLAN L. PAPERFUSS, M.D.

President 1976-1977

ANCILLARY MEETINGS

AMERICAN COLLEGE OF SURGEONS, NEBRASKA CHAPTER, ANNUAL BUSINESS MEETING — Sunday, May 1, 4:30 p.m., Caucus Room, Holiday Inn of Omaha.

UNIVERSITY OF NEBRASKA PRECEPTOR BREAKFAST — Tuesday, May 3, 7:30 a.m., Colony Rooms A & B, Holiday Inn of Omaha.

UNIVERSITY OF NEBRASKA COLLEGE OF MEDICINE ALUMNI MEETING AND SOCIAL HOUR — Tuesday, May 3, 4:15 p.m., Colony Rooms A & B, Holiday Inn of Omaha.



ARNOLD W. LEMPKA, M.D.

President 1977-1978

Officers

President

Harlan L. Papenfuss, M.D., Lincoln 1976-1977
Arnold W. Lempka, M.D., Omaha 1977-1978

Secretary-Treasurer

Russell L. Gorthey, M.D., Lincoln 1978

Editor

Frank Cole, M.D., Lincoln

Executive Secretary

Kenneth E. Neff, Lincoln

Board of Councilors

District	Term Expires
1. Carlyle E. Wilson, Jr., M.D., Omaha	1978
2. Louis J. Gogela, M.D., Lincoln	1978
3. H. C. Stewart, M.D., Pawnee City	1978
4. James G. Carlson, M.D., Verdigre	1978
5. Warren R. Miller, M.D., Columbus	1979
6. Richard M. Pitsch, M.D., Seward	1979
7. Clarence Zimmer, M.D., Friend	1979
8. James E. Ramsay, M.D., Atkinson	1979
9. Hiram R. Walker, M.D., Kearney	1977
10. Fred J. Rutt, M.D., Hastings	1977
11. Berl W. Spencer, M.D., Ogallala	1977
12. Calvin M. Oba, M.D., Scottsbluff	1977

Chairman, Board of Councilors

Carlyle E. Wilson, Jr., M.D., Omaha 1977

Speaker, House of Delegates

Harry W. McFadden, Jr., M.D., Omaha 1977

Vice Speaker, House of Delegates

Charles W. Landgraf, Jr., M.D., Hastings 1977

Delegates to AMA

John R. Schenken, M.D., Omaha 1978
C. J. Cornelius, Jr., M.D., Sidney 1977

Alternate Delegates to AMA

John D. Coe, M.D., Omaha 1978
Louis J. Gogela, M.D., Lincoln 1977

Delegate to North Central Medical Conference

Russell L. Gorthey, M.D., Lincoln 1977

Board of Directors

Charles F. Ashby, M.D., Geneva, Chairman 1980
Dwight W. Burney, Jr., M.D., Omaha 1977
Robert B. Benthack, M.D., Wayne 1978
Robert J. Morgan, M.D., Alliance 1979
Russell L. Gorthey, M.D., Lincoln

Announcements

House of Delegates

First Session: Sunday, May 1, 1977, 1:00 p.m., Documents Room
Second Session: Monday, May 2, 1977, 8:00 a.m., Documents Room
Third Session: Wednesday, May 4, 1977, 7:30 a.m., Documents Room

Board of Councilors

First Session: Sunday, May 1, 1977, 11:00 a.m., Caucus Room
Second Session: Monday, May 2, 1977, 11:00 a.m., Empire Room A

Board of Directors

Tuesday, May 3, 1977, 7:30 a.m., State Room

Nominating Committee

First Session: Monday, May 2, 1977, 10:30 a.m., State Room
Second Session: Tuesday, May 3, 1977, 11:15 a.m., State Room
Third Session: Tuesday, May 3, 1977, 4:15 p.m., State Room

Technical Exhibitors

Acknowledgements

The Nebraska Medical Association takes this opportunity to recognize and express its appreciation for the grants received from the following organizations:

CIBA-GEIGY Corporation
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Postgraduate Program

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Mallinckrodt, Inc., Hazelwood, Missouri

Medical Management Systems, Inc., Lincoln, Nebraska

The National Foundation — March of Dimes, Omaha,
Nebraska

Nebraska Department of Health, Lincoln, Nebraska

Nebraska Dietetic Association, Lincoln, Nebraska

Professional Credit Control Inc., Lincoln, Nebraska

Roche Laboratories, Nutley, New Jersey

St. Paul Fire and Marine Insurance Company, St. Paul,
Minnesota

Sandoz Pharmaceuticals, East Hanover, New Jersey

Social Security Disability, Lincoln, Nebraska

E. R. Squibb & Sons, Inc., Princeton, New Jersey

United States Air Force Medical Placement Team,
Omaha, Nebraska

United States Navy Recruiting District, Omaha,
Nebraska

The Upjohn Company, Kansas City, Missouri

Scientific Sessions Committee

Robert M. Stryker, M.D., Chairman Omaha

Chris C. Caudill, M.D. Lincoln

Richard A. Cottingham, M.D. McCook

Ramon M. Fusaro, M.D. Omaha

Russell L. Gorthey, M.D. Lincoln

Joel T. Johnson, M.D. Kearney

PROGRAM

SUNDAY EVENING, MAY 1, 1977

7:00 MEDICINE AND RELIGION DINNER — Empire Rooms A, B & C

Sponsored by the NMA Medicine and Religion Committee

Presiding —

Edward A. Holyoke, Jr., M.D., Ogallala
Chairman, NMA Medicine and Religion
Committee

Speaker —

"The Physician and The Dying"

Ned H. Cassem, M.D., Boston,
Massachusetts
Associate Professor of Psychiatry
Harvard Medical School

Ned H. Cassem, M.D.

Boston, Massachusetts

Doctor Cassem graduated from Harvard Medical School in 1966, and received his Divinity Degree from Weston College in 1970. He became certified by the American Board of Psychiatry and Neurology in 1975. Doctor Cassem currently serves as Associate Professor of Psychiatry at the Harvard Medical School at Massachusetts General Hospital. He serves on the Advisory Board of the Foundation of Thanatology in New York and on the Executive Board of Directors of Creighton University.



PROGRAM

TUESDAY MORNING, MAY 3, 1977



Howard M. Spiro, M.D.
New Haven, Connecticut

Doctor Spiro graduated from Harvard Medical School in 1947. He completed his residency training at Peter Bent Brigham Hospital in Boston and Massachusetts General Hospital. He currently serves as Professor of Medicine and Chief of the Gastrointestinal Section at Yale University School of Medicine.

Robert I. White, Jr., M.D.

Baltimore, Maryland

Doctor White graduated from the College of Medicine, Baylor University in 1963. He obtained his residency training at Johns Hopkins Hospital and the Los Angeles County Harbor General Hospital. Doctor White currently serves as Associate Professor of Radiology and Director of the Cardiovascular Diagnostic Laboratory at Johns Hopkins Hospital.



PROGRAM

Nebraska Medical Association 109th Annual Session

TUESDAY MORNING, MAY 3, 1977

8:00 Registration, High-Rise Foyer

8:00 Exhibits Open, Presidents Room
Coffee available in Exhibit Area

9:15 **OPENING CEREMONIES — Documents Room**

Welcome —

Harlan L. Papenfuss, M.D., Lincoln
NMA President

Invocation—

The Reverend Harold E. Schmidt, Omaha
Senior Pastor
First Lutheran Church

Necrology —

John D. Coe, M.D., Omaha
NMA Past President and Senior
Member of the NMA Policy Committee

9:30 to 12:00 **SYMPOSIUM ON THE DIAGNOSIS AND
TREATMENT OF GASTROINTESTINAL
HEMORRHAGE — Documents Room**

Moderator —

Dwaine J. Peetz, M.D., Neligh
General Surgery

"Diagnosis of Gastrointestinal Bleeding — 1977"
—Howard M. Spiro, M.D., New Haven,
Connecticut
Professor of Medicine
Yale University School of Medicine

"Angiographic Localization and Control of
Gastrointestinal Bleeding by Catheter Tech-
niques"

—Robert I. White, Jr., M.D., Baltimore,
Maryland
Associate Professor of Radiology
Director, Cardiovascular Diagnostic Labora-
tory
Johns Hopkins Hospital

Questions and Discussion

PROGRAM

TUESDAY NOON, MAY 3, 1977

12:00 **ATHLETIC MEDICINE LUNCHEON — Caucus
Room**

Sponsored by the NMA Subcommittee on
Athletic Injuries

Presiding —

John E. Murphy, M.D., Aurora
Chairman, NMA Subcommittee on
Athletic Injuries

Mr. Jesse Owens
Phoenix, Arizona

Mr. Jesse Owens is considered by many sports experts to be the greatest track and field star of the half century. His athletic career began in 1928, in Cleveland, when he set two new world records for junior high school students. During his high school days, he won all of the major track events. As a sophomore at Ohio State University, he set three world records and tied a fourth in a single track meet. At the 1936 Olympic games, he set new Olympic records in the 100 meters, 200 meters and broad jump and ran on the victorious relay team. In August, 1976, Mr. Owens was presented the Medal of Freedom by President Gerald Ford before 250 members of the 1976 U.S. Olympic Team.



"A Life Of Fulfillment In Sports and Medicine"
Mr. Jesse Owens, Phoenix, Arizona

2:00 Visit the Exhibits, Presidents Room

CONDENSED SCHEDULE OF PROGRAM

SUNDAY, MAY 1, 1977

- 11:00 Board of Councilors,
Caucus Room
- 1:00 House of Delegates,
Documents Room
- 7:00 Medicine and Religion Dinner,
Empire Rooms A, B & C

MONDAY, MAY 2, 1977

Morning

- 8:00 House of Delegates,
Documents Room
- 8:00 Registration,
High-Rise Foyer
- 10:30 Nominating Committee,
State Room
- 11:00 Board of Councilors,
Empire Room A

Afternoon

- 11:30 Golf Tournament,
Highland Country Club
128th and Pacific
- 12:00 Tennis,
Hanscom Brandeis Tennis Center
3200 Ed Creighton Avenue
- 1:30 Trap Shoot,
Harry A. Koch Trap and Skeet Range
6802 Harrison Street
- 6:00 Sportsman's Social Hour,
Highland Country Club
128th and Pacific
- 7:30 Sportsman's Annual Award Dinner,
Highland Country Club
128th and Pacific

TUESDAY, MAY 3, 1977

Morning

- 7:30 Board of Directors,
State Room
- 8:00 Registration,
High-Rise Foyer
- 8:00 Exhibits Open,
Presidents Room
- 9:15 Opening Ceremonies,
Documents Room
Welcome
Invocation
Necrology
- 9:30-12:00 Symposium on the Diagnosis and Treatment of Gastrointestinal Hemorrhage,
Documents Room
- 11:15 Nominating Committee,
State Room
- 12:00 Athletic Medicine Luncheon,
Caucus Room

Afternoon

- 2:00 Visit the Exhibits, Presidents Room
- 2:30 Presentation of AMA-ERF Checks and NMF
Student Research Scholarship Program
Checks, Documents Room
- 2:35-4:15 Symposium on Suicide,
Documents Room
- 4:15 Nominating Committee,
State Room
- 4:15 Visit the Exhibits,
Presidents Room
- 6:00 PRESIDENTS RECEPTION FOR
MEMBERS AND WIVES,
Aboard the Belle of Brownville
- 7:00 FUN NIGHT,
Dinner — Bellevue Queen Restaurant
Haworth Park, Bellevue
Cruise on Missouri River on Belle of
Brownville

WEDNESDAY, MAY 4, 1977

Morning

- 7:00 Past President's Breakfast,
State Room
- 7:30 House of Delegates,
Documents Room
- 8:00 Registration,
High-Rise Foyer
- 8:30 Visit the Exhibits,
Presidents Room
- 9:15-11:15 Symposium on What's New In Medicine,
Caucus Room and Exhibition Hall
- 11:15 Visit the Exhibits,
Presidents Room
- 12:00 Annual Distinguished Luncheon,
Caucus and Documents Rooms
Installation of New President
Recognition of Fifty-Year Practitioners
Frank H. Tanner Memorial Lecture

PROGRAM

TUESDAY AFTERNOON, MAY 3, 1977

- 2:30 Presentation of AMA-ERF Checks
and NMF Student Research Scholarship
Program Checks, Documents Room
- 2:35 SYMPOSIUM ON SUICIDE — Documents
to Room
4:15

Moderator —
Robert G. Osborne, M.D., Lincoln
Psychiatry

Edwin S. Shneidman, Ph.D.
Los Angeles, California

Doctor Shneidman obtained his Doctor of Philosophy Degree from the University of Southern California in 1948. He currently serves as Professor of Thanatology in Residence in the Department of Psychiatry at UCLA and as Director of the Laboratory for the Study of Life-Threatening Behavior at UCLA. Doctor Shneidman also serves as a consultant to the V. A. Brentwood Hospital in Los Angeles. He served as Editor of LIFE-THREATENING BEHAVIOR and currently is the Editor of SUICIDE.

"Reflections On Suicide and Suicide Prevention"

—Edwin S. Shneidman, Ph.D., Los Angeles,
California

Professor of Thanatology
University of California, Los Angeles

Panel:

- Bulent Tunakan, M.D., Omaha
Psychiatry
- Paul F. Reichstadt, M.D., Omaha
Family Practice
- Barbara Wheeler, Omaha
Director of Emergency Services
Eastern Nebraska Community Office of
Mental Health

Questions and Discussion

- 4:15 Visit the Exhibits, Presidents Room

PROGRAM

TUESDAY EVENING, MAY 3, 1977

- 6:00 **PRESIDENT'S RECEPTION** For Members and
Wives
Aboard the Belle of Brownville
- 7:00 **FUN NIGHT**
Bellevue Queen Restaurant
Haworth Park, Bellevue

John J. Hoelsing, M.D., Chairman



A gourmet dinner at the Bellevue Queen with entertainment by the "Strolling Strings." Then a cruise on the Belle of Brownville, with entertainment by "Bourbon Street." A fun-filled evening! Informal dress suggested.



PROGRAM

WEDNESDAY MORNING, MAY 4, 1977

- 8:00 Registration, High-Rise Foyer
- 8:30 Visit the Exhibits, Presidents Room
Coffee available in Exhibit Area
- 9:15 **SYMPOSIUM ON WHAT'S NEW IN MEDICINE** — Caucus Room and Exhibition Hall
to
11:15

Three Simultaneous Round-Table Discussions
Scheduled In Thirty-Five Minute Segments

Informality and Free Discussion Will Prevail



PROGRAM

WEDNESDAY MORNING, MAY 4, 1977

- 9:15 **Computerized Tomography Scanning** — Caucus
to Room
11:15 "Cranial CT In Neurologic Disease"
— John F. Aita, M.D., Omaha
Neurology

"Early Experiences With Body Scanning"
— James P. Schlichtemier, M.D., Omaha
Radiology

Diagnosis of Leg Problems In Children —
Exhibition Hall

— James M. Donovan, M.D., Omaha
Pediatrics

— James K. Styner, M.D., Lincoln
Orthopedic Surgery

**Application of Blood Gases To Ventilator
Management** — Exhibition Hall

— Louis W. Burgher, M.D., Omaha
Pulmonology

— Walter J. O'Donohue, Jr., M.D., Omaha
Pulmonology

- 11:15 Visit the Exhibits, Presidents Room

PROGRAM

WEDNESDAY NOON, MAY 4, 1977



Richard E. Palmer, M.D.
President of the AMA
Alexandria, Virginia

Doctor Palmer graduated from George Washington University School of Medicine. He is a pathologist in Alexandria, Virginia, where he has practiced at Alexandria Hospital since 1949 and at Circle Terrace Hospital Laboratory since 1955. Doctor Palmer was the 1974 recipient of the Pathologists' Distinguished Service Award jointly presented by the American Society of Clinical Pathologists and the College of American Pathologists. At the same time, he became the first pathologist to receive the new Continuing Medical Education Award established jointly by those two organizations and also the first pathologist to qualify directly for the AMA's Physician's Recognition Award for Continuing Medical Education on the basis of having earned that joint certification. Prior to his election at the AMA 1975 Annual Convention in Atlantic City, Doctor Palmer had been Chairman of the Board of Trustees since 1973. He also served as a member of the AMA Council on Medical Service and its Committees on Health Care of the Poor and Government Medical Service in 1969-70. Doctor Palmer and his wife, Mary Lou, have two sons and two daughters. One of their sons is a second-year resident in pathology at the George Washington University Hospital.

PROGRAM

WEDNESDAY NOON, MAY 4, 1977

12:00 ANNUAL DISTINGUISHED LUNCHEON —
Caucus and Documents Rooms

For Members and Wives

Presiding —

C. Lee Retelsdorf, M.D., President
Greater Omaha Medical Society

Installation of Arnold W. Lempka, M.D.

Recognition of Fifty-Year Practitioners

Hodson A. Abbott, M.D.
Minden

Robert E. Harry, M.D.
York

Howard B. Hunt, M.D.
Omaha

Orval C. Kreymborg, M.D.
North Platte

Arnold J. Mullman, M.D.
Prescott Valley, Arizona

Oliver P. Rosenau, M.D.
Cozad

Robert W. Taylor, M.D.
Beatrice

Frank H. Tanner Memorial Lecture

"Physicians First of All"

Richard E. Palmer, M.D., Alexandria,
Virginia
President of the AMA

Auxiliary



**MRS. GORDON D.
FRANCIS**
Grand Island, Nebraska
President, 1976-1977

MRS. GUY M. MATSON
Lincoln, Nebraska
President, 1977-1978



**MRS. WILLIAM M.
WALKER**
Springfield, Missouri
Project Bank Coordinator
and
Member, Board of Directors
of the
American Medical
Association Auxiliary



Auxiliary

52nd Annual Meeting of the Nebraska Medical Association Auxiliary

A CORDIAL INVITATION TO JOIN US IS EXTENDED TO EACH PHYSICIAN'S SPOUSE IN NEBRASKA. WE URGE YOU TO REGISTER AND ATTEND THE ENTIRE PROGRAM. COME, RELAX AND ENJOY "THE GOOD LIFE" AT CONVENTION!

Registration: High-Rise Foyer, Holiday Inn, 3321 South 72nd Street, Omaha

Monday, May 2 — 9:00 A.M. to 3:00 P.M.

Tuesday, May 3 — 8:30 A.M. to 5:00 P.M.

Wednesday, May 4 — 8:30 A.M. to 10:00 A.M.

Hospitality Room, Displays and AMA-ERF Boutique:
Colony Rooms A and B

Convention Committees:

General Co-chairmen:
Mrs. Robert M. Stryker
Mrs. John J. Hoelsing

Registration:
Mrs. Robert L. Kruger

Publicity:
Mrs. W. Benton Copple

Courtesy:
Mrs. John A. Haggstrom

Transportation:
Mrs. Richard C. Pitner

Decorations:
Mrs. O. Douglas Osterholm

No-Host Dinner:
Mrs. Stanley M. Bach

Joslyn Art Museum Champagne Brunch and Art Show:
Mrs. James. E. Call

Displays and Business Meetings:
Mrs. Barney B. Rees

HOSTESSES:

Health Gallery Luncheon:
Mrs. John R. Feagler
Mrs. Sam L. Watson

General Crook House Tour:
Mrs. John J. Hoelsing

No-Host Dinner:
Mrs. George E. Robertson
Mrs. Fay Smith

Joslyn Champagne Brunch:
Mrs. W. Benton Copple
Mrs. Ronald L. Wax

Auxiliary PROGRAM

SUNDAY, MAY 1, 1977

Evening

- 7:00 Medicine and Religion Dinner — Empire Rooms
A, B and C, Holiday Inn
(Joint Meeting of Auxiliary and NMA)

"The Physician and The Dying"
— Ned H. Cassem, M.D., Boston, Massachusetts
Associate Professor of Psychiatry
Harvard Medical School

MONDAY, MAY 2, 1977

Morning

- 8:30 Coffee and Rolls — Colony Rooms A and B,
Holiday Inn
- 9:00- Registration — High-Rise Foyer, Holiday Inn
3:00
- 9:00 Pre-Convention Board and Annual Meeting
Combined. All Members Welcome.
Colony Rooms A and B, Holiday Inn

Presiding: Mrs. Gordon D. Francis
NMA Auxiliary President
Reports of Officers, Chairmen and County
Presidents
Business and Election of Officers
Memorial Service

Afternoon

- 1:00 Luncheon Benefiting the Health Gallery
Home of Mrs. John R. Feagler, 9227 Raven
Oaks Drive. Transportation will be available.
Meet at 12:30, Lobby, Holiday Inn.
Hostesses:
Mrs. John R. Feagler
Mrs. Sam L. Watson
- 2:30 Tour of the Historical General Crook House at
Fort Omaha
Hostess:
Mrs. John J. Hoelsing
- 3:00 Round-Table Discussion for All 1977-78 County
Officers — General Crook House

Evening

- 6:30 No-Host Dinner
Sidewalk Cafe, 153 Regency Fashion Court
Hostesses:
Mrs. Stanley M. Bach
Mrs. George E. Robertson
Mrs. Fay Smith
- 8:00 Social Hour for Members-At-Large
Home of Mrs. F. William Karrer, 3135
Armbrust Drive

Auxiliary PROGRAM

TUESDAY, MAY 3, 1977

Morning

- 8:30- Registration — High-Rise Foyer, Holiday Inn
5:00
- 9:30 Art Showing at Joslyn Art Museum
2200 Dodge
Transportation will be available.
Meet at 9:00 a.m., Lobby, Holiday Inn.
- 10:30 Champagne Brunch
Joslyn Art Museum, 2200 Dodge

Hostesses:

Mrs. James E. Call
Mrs. W. Benton Copple
Mrs. Ronald L. Wax

Guest Speaker:

Mrs. William M. Walker, Springfield, Missouri
Project Bank Coordinator and Member, Board
of Directors of the AMA Auxiliary
Introduction of Honored Guests
Presentation of Special Awards
Installation of Officers

Afternoon

- 2:30 Presentation of AMA-ERF Checks and
NMF Student Research Scholarship
Program Checks —
Documents Room, Holiday Inn
- 2:35- Symposium on Suicide — Documents Room,
4:15 Holiday Inn
(Joint Meeting of Auxiliary and NMA)
- "Reflections On Suicide and Suicide Prevention"
— Edwin S. Shneidman, Ph.D., Los Angeles,
California
Professor of Thanatology
University of California, Los Angeles

Panel:

— Bulent Tunakan, M.D., Omaha
Psychiatry
— Paul F. Reichstadt, M.D., Omaha
Family Practice
— Barbara Wheeler, Omaha
Director of Emergency Services
Eastern Nebraska Community Office of Mental
Health

Evening

- 6:00 President's Reception — Aboard Belle of Brown-
ville
- 7:00 Fun Night — Bellevue Queen Restaurant
Haworth Park, Bellevue

Auxiliary PROGRAM

WEDNESDAY, MAY 4, 1977

Morning

8:30-10:00 Registration — High-Rise Foyer, Holiday Inn

8:30 Coffee and Rolls — Colony Rooms A and B, Holiday Inn

9:00 Post-Convention Board Meeting — Colony Rooms A and B, Holiday Inn

Presiding: Mrs. Guy M. Matson
NMA Auxiliary President

"A Doctor's Wife Wears Many Hats"
— Mrs. R. C. Fenstermacher
Mayor, Nebraska City, Nebraska

Afternoon

12:00 Annual Distinguished Luncheon — Caucus and Documents Rooms, Holiday Inn
(Joint Meeting of Auxiliary and NMA)

Installation of Arnold W. Lempka, M.D.
Recognition of Fifty-Year Practitioners
Frank H. Tanner Memorial Lecture
"Physicians First of All"
— Richard E. Palmer, M.D.
President of the AMA
Alexandria, Virginia

Past Presidents Nebraska Medical Association

Gilbert C. Monell, M.D., Omaha	1868-69
James H. Peabody, M.D., Omaha	1869-70
N. B. Larsh, M.D., Nebraska City	1870-71
R. R. Livingston, M.D., Plattsmouth	1871-72
A. Bowen, M.D., Nebraska City	1872-73
H. P. Mathewson, M.D., Omaha	1873-74
John Black, M.D., Plattsmouth	1874-75
L. H. Robbins, M.D., Lincoln	1875-76
J. P. Peck, M.D., Omaha	1876-77
L. J. Abbott, M.D., Fremont	1877-78
E. M. Whitten, M.D., Nebraska City	1878-79
Harvey Link, M.D., Millard	1879-80
S. D. Mercer, M.D., Omaha	1880-81
M. W. Stone, M.D., South Omaha	1881-82
A. H. Sowers, M.D., Lincoln	1882-83
Victor H. Coffman, M.D., Omaha	1883-84
F. G. Fuller, M.D., Grand Island	1884-85
W. W. Knapp, M.D., Lincoln	1885-86
Richard C. Moore, M.D., Omaha	1886-87
George H. Peebles, M.D., Lincoln	1887-88
Milton Lane, M.D., Kearney	1888-89
J. C. Denise, M.D., Omaha	1889-90
D. A. Walden, M.D., Beatrice	1890-91
Charles Inches, M.D., Scribner	1891-92
M. L. Hildreth, M.D., Lyons	1892-93
A. S. von Mansfelde, M.D., Ashland	1893-94
H. B. Lowry, M.D., Lincoln	1894-95
J. E. Summers, M.D., Omaha	1895-96
F. D. Haldeman, M.D., Ord	1896-97
Wilson O. Bridges, M.D., Omaha	1897-98
A. R. Mitchell, M.D., Lincoln	1898-99
Robert McConaughy, M.D., York	1899-00
H. M. McClanahan, M.D., Omaha	1900-01
Wm. B. Eby, M.D., Ainsworth	1901-02
A. B. Anderson, M.D., Pawnee City	1902-03
B. F. Crummer, M.D., Omaha	1903-04
R. C. McDonald, M.D., Fremont	1904-05
A. F. Jonas, M.D., Omaha	1905-06
F. A. Long, M.D., Madison	1906-07
Harold Gifford, M.D., Omaha	1907-08
L. M. Shaw, M.D., Osceola	1908-09
P. H. Salter, M.D., Norfolk	1909-10
J. P. Lord, M.D., Omaha	1910-11
A. D. Nesbit, M.D., Tekamah	1911-12
I. N. Pickett, M.D., Odell	1912-13
D. C. Bryant, M.D., Omaha	1913-14
J. P. Gilligan, M.D., O'Neill	1914-15
E. W. Rowe, M.D., Lincoln	1915-16
W. F. Milroy, M.D., Omaha	1916-17 (to 12-31-17)
C. L. Mullins, M.D., Broken Bow	1918
J. M. Bannister, M.D., Omaha	1919
H. W. Orr, M.D., Lincoln	1920
M. S. Moore, M.D., Gothenburg	1921
B. B. Davis, M.D., Omaha	1922
B. F. Bailey, M.D., Lincoln	1923

Past Presidents Nebraska Medical Association

Morris Nielsen, M.D., Blair	1924
Palmer Findley, M.D., Omaha	1925
H. J. Lehnhoff, M.D., Lincoln	1926
H. E. Potter, M.D., Fairbury	1927
B. R. McGrath, M.D., Grand Island	1928-29 (to 5-14-29)
F. S. Owen, M.D., Omaha	1929-30
K. S. J. Hohlen, M.D., Lincoln	1930-31
Lucien Stark, M.D., Norfolk	1931-32
A. E. Cook, M.D., Randolph	1932-33
Adolph Sachs, M.D., Omaha	1933-34
Joseph Bixby, M.D., Geneva	1934-35
Claude A. Selby, M.D., North Platte	1935-36
George W. Covey, M.D., Lincoln	1936-37
R. W. Fouts, M.D., Omaha	1937-38
Homer Davis, M.D., Genoa	1938-39
A. L. Miller, M.D., Kimball	1939-40
Clayton F. Andrews, M.D., Lincoln	1940-41
W. P. Wherry, M.D., Omaha	1941-42
Dexter D. King, M.D., York	1942-43
A. L. Cooper, M.D., Scottsbluff	1943-44
Floyd L. Rogers, M.D., Lincoln	1944-45
Charles McMartin, M.D., Omaha	1945-46
Earle G. Johnson, M.D., Grand Island	1946-47
G. E. Charlton, M.D., Norfolk	1947-48
J. E. M. Thomson, M.D., Lincoln	1948-49
J. D. McCarthy, M.D., Omaha	1949-50
C. H. Sheets, M.D., Cozad	1950-51
D. B. Steenburg, M.D., Aurora	1951-52
Harold S. Morgan, M.D., Lincoln	1952-53
James F. Kelly, M.D., Omaha	1953-54
Earl F. Leininger, M.D., McCook	1954-55
Wm. E. Wright, M.D., Creighton	1955-56
J. M. Woodward, M.D., Lincoln	1956-57
R. Russell Best, M.D., Omaha	1957-58
Fay Smith, M.D., Imperial	1958-59
E. E. Koebbe, M.D., Columbus	1959-60
Fritz Teal, M.D., Lincoln	1960-61
A. J. Offerman, M.D., Omaha	1961-62
O. A. Kostal, M.D., Hastings	1962-63
R. F. Sievers, M.D., Blair	1963-64
R. E. Garlinghouse, M.D., Lincoln	1964-65
Willis D. Wright, M.D., Omaha	1965-66
Dan A. Nye, M.D., Kearney	1966-67
Robert J. Morgan, M.D., Alliance	1967-68
Frank H. Tanner, M.D., Lincoln	1968-69
J. Whitney Kelley, M.D., Omaha	1969-70
Clarence R. Brott, M.D., Beatrice	1970-71
Roger D. Mason, M.D., McCook	1971-72
Frank P. Stone, M.D., Lincoln	1972-73
John D. Coe, M.D., Omaha	1973-74
James H. Dunlap, M.D., Norfolk	1974-75
Warren G. Bosley, M.D., Grand Island	1975-76

Technical Exhibitors

109th Annual Session

BLUE CROSS AND BLUE SHIELD OF NEBRASKA, Omaha, Nebraska — Provider Relations Representatives will be on hand for individual discussions with physicians.

COCA-COLA USA, Chicago, Illinois — Stop by our booth and refresh yourself with a complimentary drink of Coca-Cola or TAB.

DAIRY COUNCIL OF CENTRAL STATES, INC., Omaha, Nebraska — Dairy Council of Central States, a non-profit nutrition education organization, will display various nutrition education materials available free or at a nominal charge to medical professionals.

DAUBERT'S MALIBU POOLS INC., Lincoln, Nebraska — Daubert's Malibu Pools Inc. will have a full-sized, one-piece, fiberglass pool on display for your inspection at the convention. Fiberglass has revolutionized the small boat industry and is doing the same for swimming pools. The multi-layered construction of rugged fiberglass cloth enables your pool to withstand freezing temperatures, expansive soils and hydrostatic pressures.

DORSEY LABORATORIES, Lincoln, Nebraska — Dorsey Laboratories will have medical educational material available, as well as product information on Metaprel, Gris-PEG, Asbron G and the Triaminic Family. We would welcome your visit to our booth and hope to be of service.

ENCYCLOPAEDIA BRITANNICA, Chicago, Illinois — Encyclopaedia Britannica welcomes members and guests to the 1977 Annual Session of the Nebraska Medical Association. As part of our exhibit, we will have on display the revolutionary new Encyclopaedia Britannica 3, The Britannica Junior, Great Books of the Western World and other related products. Stop and inspect our products, they are available to the members and guests at the exhibit offer.

INTERNATIONAL MEDICAL ELECTRONICS, LTD., Kansas City, Missouri — International Medical Electronics, Ltd., manufacturers of sophisticated medical equipment, featuring Magnatherm short-wave diathermy with two detachable heads. Offering the ability to treat two separate areas, or one from two directions at the same time. Please stop by Booth #24, for a demonstration.

KRIEG CONSULTANTS, INC., Omaha, Nebraska — The Automated Medical Office System will be presented jointly by Krieg Consultants, Inc. and the Burroughs Corporation. Utilizing the B80 mini-computer, the system provides a medical clinic with the following: itemized statements, completed insurance forms, comprehensive accounting reports. You are cordially invited to a demonstration of how to spend less time on paperwork and increase your cash flow.

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Technical Exhibitors

109th Annual Session

MEDICAL MANAGEMENT SYSTEMS, INC., Lincoln, Nebraska — Burroughs Corporation will feature the L9000 Series Mini-Computer, designed for in-house medical clinic accounting. Highlighting the system will be the automatic preparation of Third-Party Payor Forms, as a by-product of patient billing. The computer program or "software" has been exclusively developed by Medical Management Systems of Lincoln, a firm serving the Medical Industry only. Medical Management's representatives will be in attendance to assist Burroughs in the software portion of the presentation.

THE NATIONAL FOUNDATION — MARCH OF DIMES, Omaha, Nebraska — The exhibit identifies the genetics program housed at Childrens Memorial Hospital in Omaha. It is a state program sponsored by March of Dimes Chapters in the state.

NEBRASKA DEPARTMENT OF HEALTH, Lincoln, Nebraska — Community Health Services. A visual display, coordinated with literature, to provide basic introduction to the Community Health Services Program of the **Nebraska State Department of Health**. Emphasis on primary service areas of Health Education, Community Health Nursing and Environmental Health Services. Staff personnel will be available to answer questions.

NEBRASKA DIETETIC ASSOCIATION, Lincoln, Nebraska — There will be Registered Dietitians at the booth. Hand-out and mail-out materials will be available pertaining to Normal and Modified Diets.

ROCHE LABORATORIES, Nutley, New Jersey — Visit our representatives at Booth #17.

ST. PAUL FIRE AND MARINE INSURANCE COMPANY, St. Paul, Minnesota — The theme of the St. Paul exhibit will be "Medical Malpractice Loss Prevention." Highlighting this exhibit will be a display of the types of claims being experienced by Nebraska doctors. This information comes from a report called the "Claims Analysis System," a concept developed by the St. Paul in 1973. It outlines the number of claims by allegation and identifies the types of claims incurred with each Nebraska county.

SOCIAL SECURITY DISABILITY, Lincoln, Nebraska — This is a table-top display that is lighted. It helps to portray some of the functions of Social Security Disability Insurance, as well as some of the benefits derived by the claimants.

E. R. SQUIBB & SONS, INC., Princeton, New Jersey — E. R. Squibb & Sons, Inc., has long been a leader in the development of new therapeutic agents and equipment for the prevention and treatment of disease. You are cordially invited to meet our pharmaceutical representatives, who will be available at our exhibit to discuss our full line of products.

UNITED STATES AIR FORCE MEDICAL PLACEMENT TEAM, Omaha, Nebraska — Representatives from the United States Air Force Medical Placement Office in Omaha, NE, will be available throughout the convention to discuss the opportunities open to physicians in the United States Air Force Medical Corps. Those physicians interested in finding out more about Air Force Medicine are encouraged to visit the display to obtain additional information on such things as requirements, rank, salary, and service commitments.

UNITED STATES NAVY RECRUITING DISTRICT, Omaha, Nebraska — The local Medical Programs Manager and the Naval Recruiting Area Medical Programs Director from Chicago will be available to explain the values of Navy Medicine compared to civilian practice.

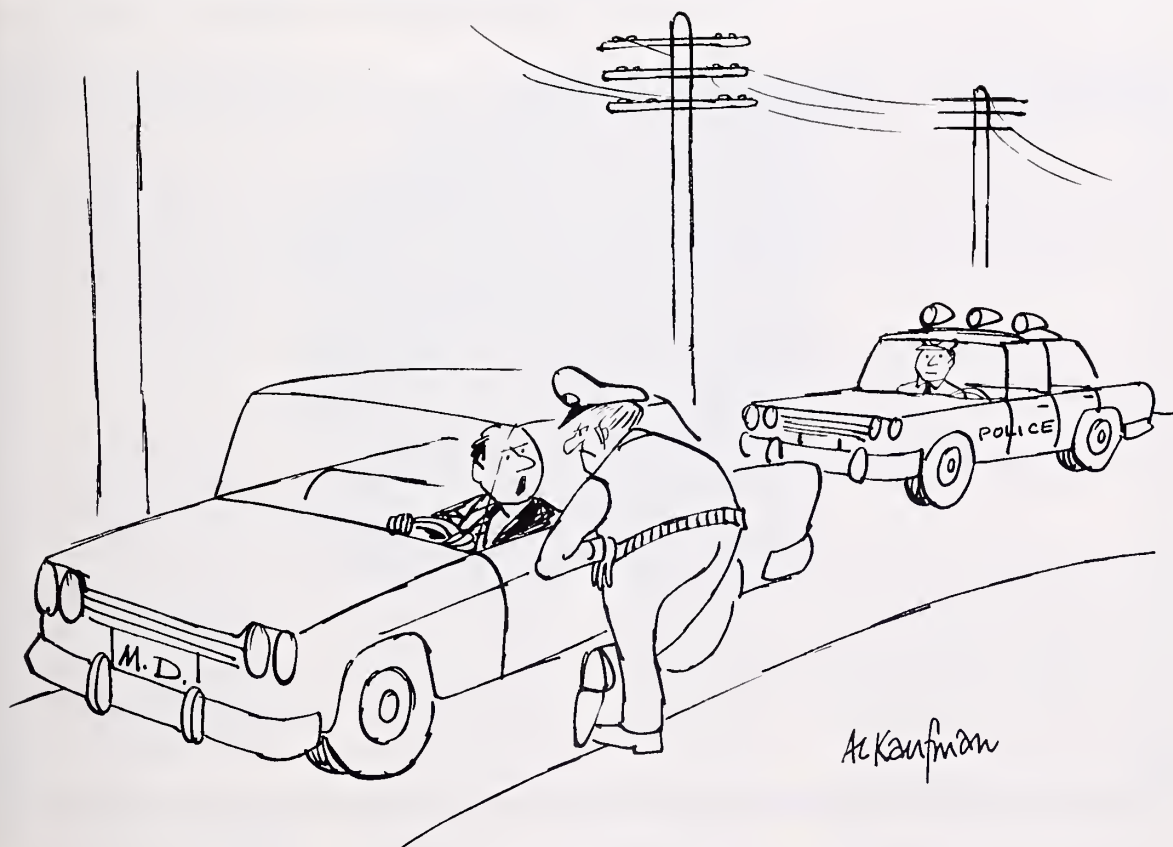
THE UPJOHN COMPANY, Kansas City, Missouri — Visit our representatives in Booth #25.

Controlled Trial of Oxygen in Uncomplicated Myocardial Infarction — J. M. Rawles (West Cornwall Hosp, Penzance, Cornwall, England) and A. C. F. Kenmure Br Med J 1/1121-1122 (May 8) 1976.

Two hundred patients thought to have suffered a myocardial infarction were admitted to a randomized double-blind controlled trial of oxygen or air administered by mask throughout the first 24 hours in hospital. Forty-three patients in whom myocardial infarction was not subsequently confirmed were excluded from the analysis. The control and oxygen groups in the remaining 157 patients were comparable except for a significantly higher P_{O_2} and aspartate aminotransferase in the oxygen group. There was no significant difference in mortality, incidence of arrhythmias, analgesic usage, or systolic time intervals, between the two groups, apart from a higher incidence of sinus tachycardia in those given oxygen.

Propranolol in Hypertension: Dose-Response Study — D. B. Galloway et al (Dept of Therapeutics and Clinical Pharmacology, Univ of Aberdeen, Aberdeen, Scotland) Br Med J 2:140-142 (July 17) 1976.

The effect of propranolol was studied in a double-blind crossover trial in 24 hypertensive outpatients. Each patient received propranolol 60 mg/day, 120 mg/day, 240 mg/day, and placebo for a four-week period, according to a randomized sequence. Propranolol 60 mg/day was not superior to placebo in reducing blood pressure. The effect of propranolol 120 mg/day and 240 mg/day was not significantly different. Both doses led to a reduction of supine blood pressure of approximately 20/10 mm Hg from an initial level of 173/104 mm Hg. No difference was detected between the effects of the different doses of propranolol and placebo on weight or on the occurrence of adverse reactions.



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Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psycho-

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tropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relation-

ship has not been established clinically.

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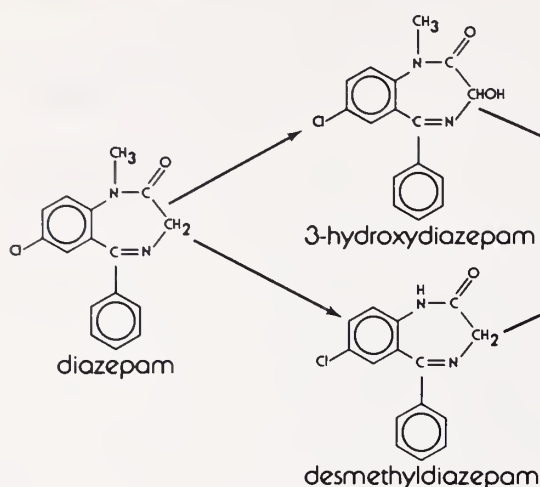
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Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma;

may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients.

Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
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Illustrations should be numbered and their locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be black (India ink) on pure white. Photographs should be on glossy paper and a minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

Manuscripts (original, not a carbon) should be sent directly to the Editor at the Journal's address.

Letters to the Editor submitted for publication should be prepared as above, and must carry the notation: To be Published.

Manuscripts not accepted for publication will not be returned to the author.

Reprints should be ordered from the printer, Norfolk Printing Co., Inc., P. O. Box 278, Norfolk, Nebr. 68701.

Causes of Physician Migration: Responses of Iranian Physicians in United States — H. A. Ronaghy et al (Fasa Medical School, Shiraz, Iran) *J Med Educ* 51:305-310 (April) 1976.

Each of the 2,270 Iranian physicians listed by the American Medical Association as residing in the United States in 1973 was sent a questionnaire in which he was asked whether or not he intended to return to Iran, his reasons for not returning if he did not intend to return, and other questions concerning his history and present status. A total of 760 questionnaires were returned. The results indicated that age, level of training, marital status, and previous practice in Iran were all related to intention to return, although whether or not the physician had returned to Iran on a visit was not an important factor. The most frequently cited reasons for not returning were professional reasons, particularly lack of medical facilities and equipment in Iran.

Rectal Suction Biopsy in the Diagnosis of Hirschsprung Disease in Infants — E. J. Yunis et al (Children's Hosp of Pittsburgh, Pittsburgh 15213) *Arch Pathol Lab Med* 100:329-333 (June) 1976.

Experience with 47 rectal suction biopsies performed in infants up to 6 months of age indicates that this is a simple and effective method for the exclusion of Hirschsprung disease. It requires the recognition of immature ganglion cells in neural units as equivalent to mature ganglion cells. Absence of these immature neural units in an adequate sample is highly suggestive of Hirschsprung disease.

Multiple Myeloma in Young Persons — G. M. Hewell and R. Alexanian (Univ of Texas M. D. Anderson Hosp, Houston 77025) *Ann Intern Med* 84:441-443 (April) 1976.

Three young men were found to have multiple myeloma. Because their ages ranged from 17 to 22 years, the diagnosis was not considered initially, and then it was doubted until electrophoretic studies were completed. In none was the disease far advanced. These patients are the first well-documented group of young persons with multiple myeloma.



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Diagnosis of Pancreatic Disease by Synthetic Peptide — C Arvanitakis (Kansas Univ Medical Center, Kansas City 66103) and N. J. Greenberger *Lancet* 1:663-665 (March 27) 1976.

N-Benzoyl-L-tyrosyl-p-aminobenzoic acid, a synthetic peptide, is specifically cleaved by the pancreatic endopeptidase chymotrypsin; the released p-aminobenzoic acid (PABA) is absorbed and excreted in the urine. To evaluate its diagnostic value, the urinary excretion of PABA after oral administration of this peptide was examined in patients with pancreatic disease (chronic pancreatitis with pancreatic insufficiency and pancreatic carcinoma). Recovery of PABA in the urine was much lower in patients with pancreatitis (40%) and pancreatic carcinoma (56%) than in the control group (75%) ($P < .001$ and $P < .05$, respectively). A good correlation was obtained comparing eight-hour cumulative recovery of PABA with maximal bicarbonate concentration during secretin cholecystokinin/pancreozmin test ($P < .001$), mean intraduodenal concentration of trypsin ($P < .01$), and 72-hour fecal fat determination ($P < .05$).

Cancer of Uterine Corpus After Hormonal Treatment for Breast Cancer — R. Hoover et al (National Cancer Institute, Bethesda, MD 20014) *Lancet* 1:885-886 (April 24) 1976.

Among 45,853 women in whom breast cancer was diagnosed after age 49, from the series of the End Results Program of the National Cancer Institute, cancer of the uterine corpus subsequently developed in 203. The risk was greater among those women receiving hormones than in other treatment groups, and tended to rise with increasing interval from first treatment. One method of estimating an expected value indicated that the excess risk of corpus cancer in breast cancer patients was restricted to those treated with hormones. Given the time period under study, it may be assumed that the hormones were primarily nonsteroidal estrogens.



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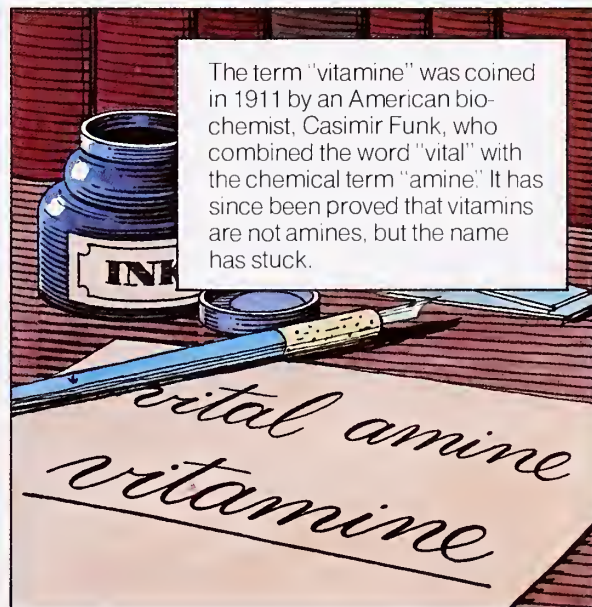
American Indians coveted fresh root tips and extracts of evergreen leaves in winter and onion-like bulbs and leaves in early spring to prevent the symptoms characteristic of vitamin C deficiency.



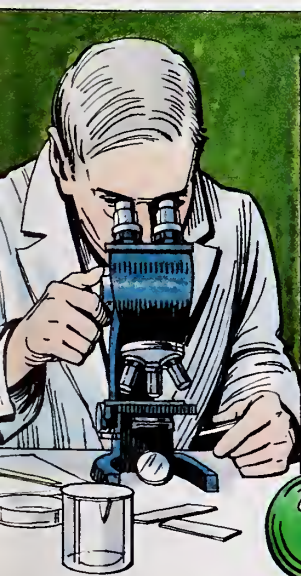
A tomato is botanically classified as a berry!



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The term "vitamine" was coined in 1911 by an American biochemist, Casimir Funk, who combined the word "vital" with the chemical term "amine." It has since been proved that vitamins are not amines, but the name has stuck.



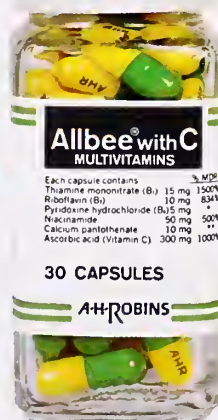
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Mucocutaneous Lymph Node Syndrome in the United States — M. E. Melish et al (R. M. Hicks, Kauikeolani Children's Hosp, Honolulu 96817) *Am J Dis Child* 130:599-607 (June) 1976.

Sixteen patients with an unusual and distinct symptom complex were encountered during a four-year period. Principal features of this syndrome are (1) fever lasting more than seven days; (2) conjunctival injection; (3) changes in the mouth consisting of erythema of the oropharynx, "strawberry tongue," and erythema of the lips; (4) indurative edema of hands and feet with palm and sole erythema followed by desquamation of the fingertips; and (5) an erythematous rash. Associated features were lymphadenopathy, pyuria, aseptic meningitis, diarrhea, arthritis, and arthralgia. Although usually a self-limited illness, one patient died with massive coronary artery thrombosis on the 19th day of illness. This syndrome appears to be clinically and pathologically similar to mucocutaneous lymph node syndrome, an illness prevalent in Japan but previously unrecognized by American clinicians. Pathologic features suggest a relationship to infantile periarteritis nodosa.

* * *

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INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

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Official classification of the less than effective indications requires further investigation.

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Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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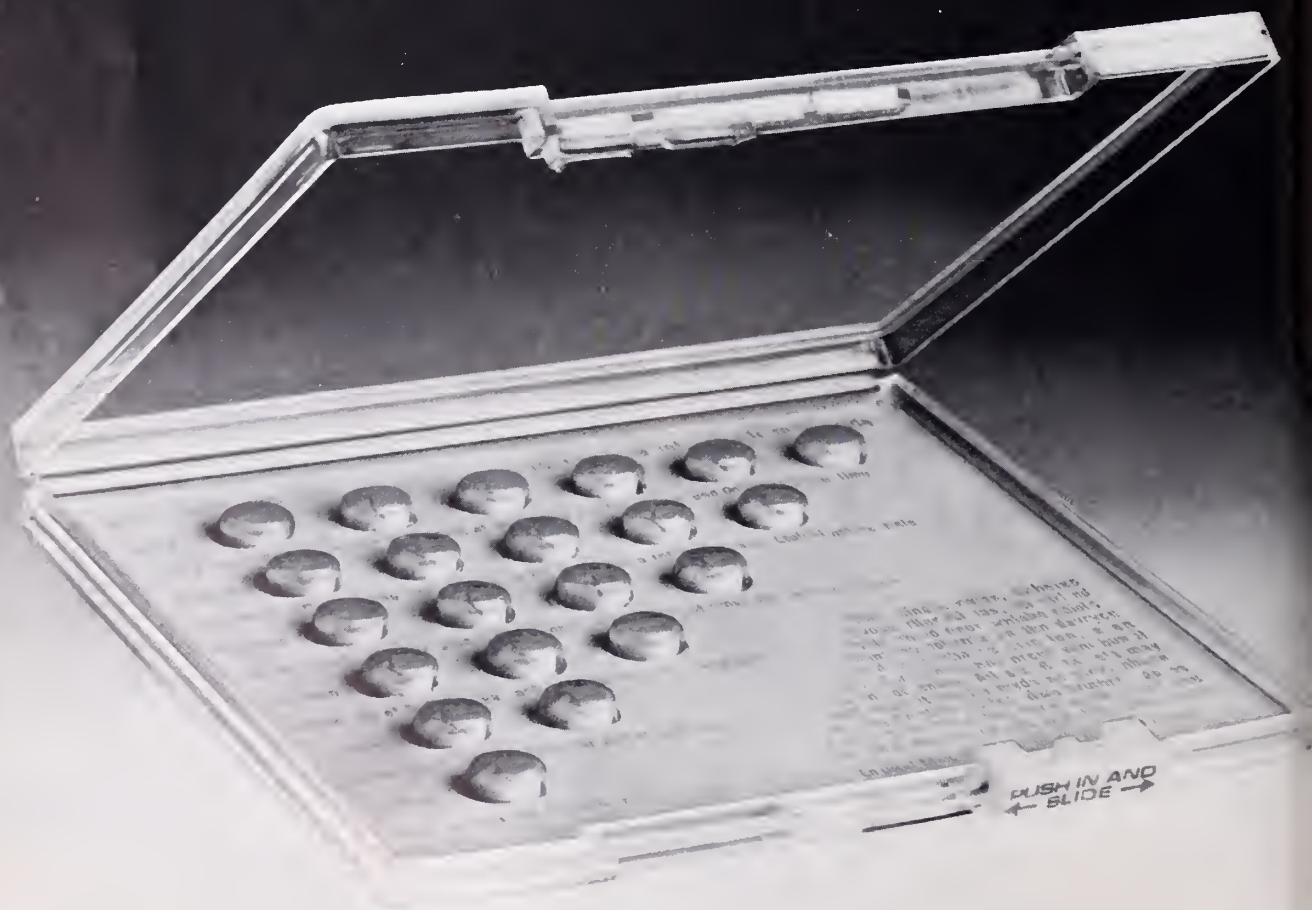
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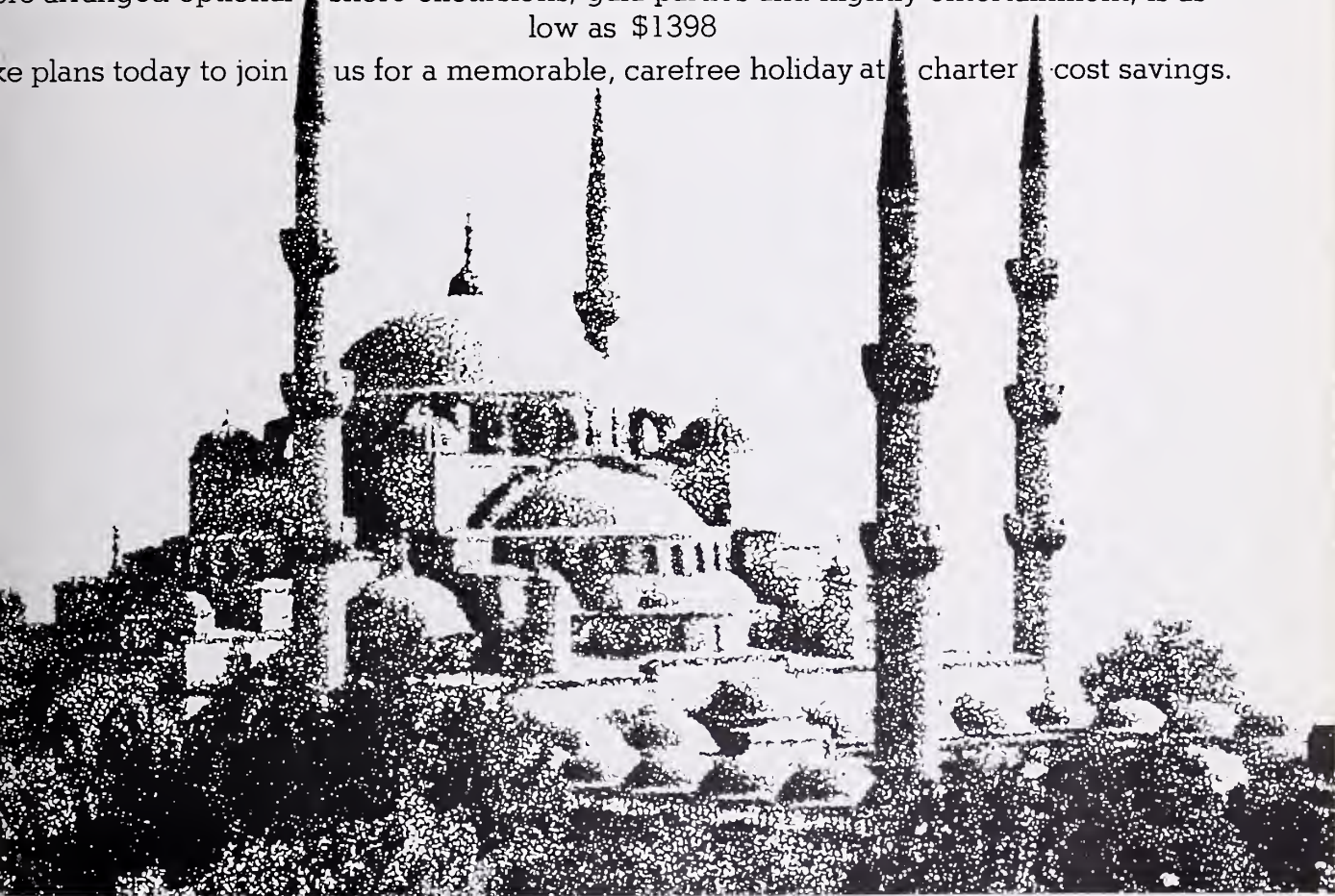
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RESEARCH

Mailgram

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

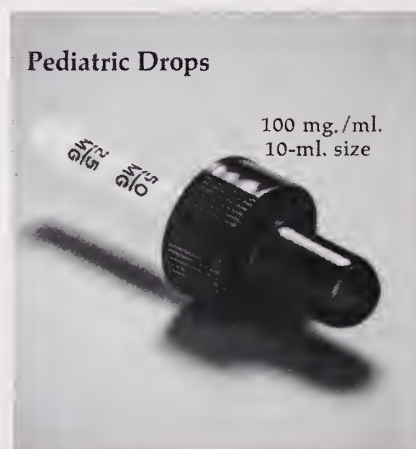
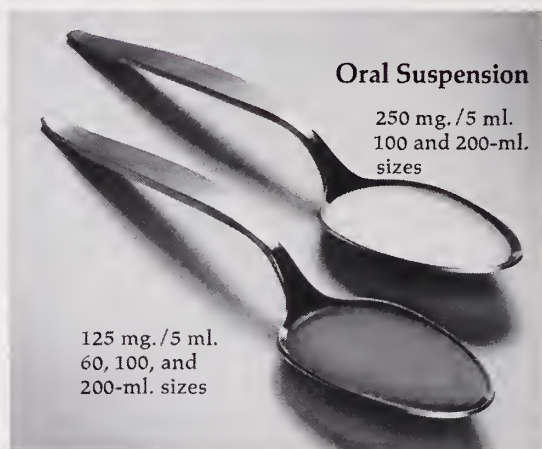
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THE NEBRASKA MEDICAL JOURNAL

WHY AREN'T WE SYMMETRICAL?

The left side of a human body looks like the right side, so that when you look in a mirror you think you see what you look like. That's not really what you look like, not to your friends. If you want to know what you look like to others, you have to stare into the joining line of two plane mirrors held at right angles to each other.

When we are cut open, things are different. Arms and legs are symmetrical, and the whole skeleton is symmetrical; eyes, ears and nose are symmetrical; all of these are mirror images of each other. But the heart is not exactly in the midline, and the aorta favors sides. The stomach is not symmetrical, nor are the small bowel, the large bowel, the spleen, the liver, hair (there are whorls), and the appendix. Even varicoceles occur mostly on the left side.

The lungs seem symmetrical, but they are not: three lobes on the right and two on the left. The brain appears to be symmetrical, but there are differences, what with speech and dominance. The kidneys are one on each side, but like the testes, may be found at different levels.

We are right-handed or left-handed, and I do not know why there must be dominance, but there is. We are also right (or left) footed, jawed, and eyed. You may tend to chew largely on one side or hold a pipe or a cigaret on one certain side; you may always kick with a favored leg, and look through a monocular telescope or microscope with the same eye. You may want to hop always on the same foot; and try firing a gun: which trigger finger, which eye?

Difficulty with dominance has been said to lead to dyslexia, to nervousness, to stammering. We are simply not the symmetrical things we seem to be, and when we rebel, we get into trouble. Nobody's perfect.

—F.C.

WHO WILL DO THE EASY CASES?

When you have delivered enough uncomplicated multiparas, it is natural that you

will want to go on to primips and breeches and forceps. You cannot do all of these if you are still doing the others, so the easy ones will be turned over to another beginner. When you have gone to open chest and to heart surgery or to its anesthesia, you will leave lymph node biopsies and incision of abscesses for someone else. When you do hip and knee replacements, you may not have time for sprained ankles.

But when you have gone on to more serious things, you are more skilled than you were, and you are better qualified than your replacement. When you leave obstetrics for gynecology, who will deliver the babies? When an operation is turned over to the resident in surgery, it is not likely that the chief of anesthesia will stay with him, and the patient will have no one but residents to attend him.

How serious is the easy case? How much can go wrong, how important is constant attention and more than average ability here? Do woolgathering and daydreaming, do inattention and looking-out-the-window go on during anesthesia that is easy and even boring?

These are easy questions, but the answers are not easy. When I am on the operating table to have an abscess opened, I want someone who is highly qualified, even if he is only proficient in abscess opening.

—F.C.

THE EDITORS SYNDROME
OR WHY MANUSCRIPTS COME BACK

The editors syndrome consists of a tremor associated with reading what used to be the early morning mail, coupled with gray hair, crying, and tooth gnashing. It follows reading of manuscripts that have references that don't refer to anything, typewritten essays submitted for publication in script or in italics or in all caps, or printed in two colors or on stiff paper. Sometimes the article is sent in with a too-long list of references, or is only single-spaced, and neither the editor nor the printer can cope with single spacing.

Sometimes it is printed on both sides of the page, or on overly long pages. Sometimes it is even handwritten. Sometimes an article is submitted by one person, but written by another.

I learned long ago, as an author, that references can be listed in three different ways: chronologically, alphabetically, or serially as they appear in the text. An author is well advised, before sending a manuscript, to read the advice-to-authors that appears in most journals, and to look through the journal to see which of these systems the editor is using.

Reference numbers in the text may appear as small numbers raised above the level of the letters, or within parentheses. The parenthesis system is not popular, as it is easily confused with similarly bracketed numbers referring to subparagraphs. There are proper ways to refer to articles you list; learn them, and use the one chosen by the journal to which you have sent your article.

Send manuscripts to the editor, not to the business office. Never submit an article without a letter of transmittal. Don't send a note with one address, while your envelope has another. Don't ask the editor when it will be published. Don't hold the galley proof too long, and do mark it OK and sign it. Don't make changes in the galley if the

editor and printer have followed your manuscript faithfully.

Count the words on a journal page; editors like two-page articles. Anything over two is less attractive; over three is not as likely to be accepted.

It will only bring on the tremor and the gnashing of teeth.

—F.C.

IS OLD AGE A DISEASE?

I cannot run the four-minute mile any more, and I cannot jump seven feet into the air. I walk more slowly, and I do not lift hundred-pound weights. I am not the man I used to be, and I don't think I ever was. And if an occasional twinge is noticed, does a symptom-complex present itself? Do the signs and symptoms of growing into ripe middle age constitute a disease?

What is usual at 50 is not found at twenty, but since it is usual, is it normal? For if you add all the symptoms of, let us say, maturity, you will surely arrive at what would otherwise be called a syndrome. It is normal, I know, to become 40 years old, it is normal to weigh more then, but I do not suppose we are to call these symptoms a disease. It may even be normal to die, but I am just not sure. Not ready, either.

— F.C.

Pulmonary Interstitial Fibrosis

IN 1935 Hamman and Rich described by clinical presentation and subsequent autopsy studies, a small group of patients with rapidly progressive pulmonary interstitial fibrosis.^{1,2} In subsequent years both acute and chronic cases of pulmonary fibrosis of known and unknown cause came to be lumped together as the "alveolo-capillary block syndrome," a now antiquated term. With increasing diagnostic sophistication many of these cases were separated into known etiological categories, but interest continued in the very large number whose etiology remained a mystery, and whose major manifestations were confined solely to the lung. In the last decade a subgroup of this idiopathic or "usual" form of interstitial pneumonitis and fibrosis was thought to be related to viral infections and to be steroid-responsive, characterized pathologically by a preponderance of desquamated (type II) alveolar cells.^{3,4} Enthusiasm for the diagnosis of desquamative interstitial pneumonitis (DIP) waned as many cases progressed to terminal fibrosis at autopsy and no viral particles were found.⁴

Recently varying degrees of immune activity have been found in the lungs of patients with pulmonary fibrosis, and an additional subgroup has been described which have evidence of aggressive immune reactions in the lungs.⁵ At present no convincing case can be made for an immune pathogenesis in these patients, but such a mechanism has not been excluded.

The list of descriptive terms for interstitial fibrosis (Table I) remains confusing. However we tend to agree with the contention that patients with idiopathic pulmonary fibrosis (or fibrosing alveolitis) all fall into a continuum ranging from an early lesion manifest by desquamation of alveolar cells with little or no fibrosis to an end-stage mural fibrosis with radiographic honeycomb lesions and severe impairment of gas transfer.⁶

Pulmonary Physiology

Diminished vital capacity ("restrictive

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disease") and impaired diffusing capacity have been the pulmonary physiology hallmarks of this group of disorders for years. Unexplained has been the marked dyspnea especially during exercise out of proportion to demonstrable hypoxia. Recent work in animal models confirms that sensory impulses mediated by the vagus nerve seem to account for the excessive ventilatory drive.⁷ The myth of an alveolo-capillary block has been removed by electronmicroscopic studies and the confirmation that the hypoxemia at rest is secondary to poor ventilation-perfusion matching and that diffusion limitation only occurs during exercise.^{8,9} Reduced lung compliance appears to be secondary to replacement of some alveoli by indistensible fibrous tissue which results in more rapid lung emptying. Measurements of alveolo-

TABLE I
Pulmonary Interstitial Fibrosis

Hamman-Rich Syndrome	
D.I.P.	(Desquamative Interstitial Pneumonia)
U.I.P.	(Usual Interstitial Pneumonia)
O.I.P.	(Organizing Interstitial Pneumonia)
C.I.P.F.	(Chronic Interstitial Pneumonitis and Fibrosis)
D.I.P.F.	(Diffuse Interstitial Pneumonitis and Fibrosis)
C.F.A.	(Cryptogenic Fibrosing Alveolitis)
Bronchiolar Emphysema	
Muscular Cirrhosis of the Lung	
Honeycomb Lung	
Bronchiolitis Obliterans	
Progressive Massive Fibrosis	

arterial gradients for oxygen diffusion during exercise appear to correlate best with disease severity and therapeutic progress.

Clinical Approach

A dyspneic patient with a restricted vital capacity and diffuse interstitial changes on chest roentgenogram should stimulate inquiry toward the five most common etiologies: congestive heart failure, aspiration pneumonia, sarcoidosis, lymphangiitic carcinoma, and idiopathic pulmonary fibrosis. The more important drug and environmental exposures are listed. (Table II) A careful family history may suggest cystic fibrosis or tuberous sclerosis. Symptoms of dysphagia should raise the question of scleroderma; hemoptysis of bronchiectasis. Arthritis often portends a collagen disorder and wheezing a hypersensitivity pneumonitis chronically experienced. (Table III) This group of disorders should not be confused with asthma nor give rise to unnecessary hyposensitization ther-

apy. Goodpasture's syndrome, polyarteritis nodosa, systemic lupus, and Wegener's granulomatosis may present with hematuria. Laboratory investigations considered of value in the diagnostic evaluation are listed. (Table IV)

In approximately 50% of cases the above investigation will be fruitless and pulmonary tissue must be obtained. We have found transbronchoscopic lung biopsy to be of great value with diagnostic tissue obtained 85% of the time.¹⁰ Avoidance of general anesthetic and a low (less than 10%) incidence of pneumothorax make the procedure safe in the very ill. However, pulmonary hypertension is a relative contraindication. Open-lung biopsy is indicated if the transbronchoscopic technique is nondiagnostic. If diffuse interstitial fibrosis is found an attempt should be made to determine if an acute or chronic process is present. We have found Masson-staining, which established the presence of collagenization and fibrin deposition, to be a helpful guide. Masson-negative tissue likely is fairly acute and progressive and justifies treatment with

TABLE II

Common Drugs	Common Chemical Inhalants
1. Nitrofurantoin	1. Nitrogen dioxide (silo gas)
2. Busulfan	2. Sulfur dioxide
3. Cyclophosphamide	3. Hydrocarbons
4. Methotrexate	4. Phosgene
5. Bleomycin	5. Chlorine
6. Oxygen	6. Ammonia
7. Radiation	7. Cadmium
	Common Inorganic Inhalants
	1. Silica
	2. Asbestos
	3. Coal
	4. Iron (welding)
	5. Beryllium

TABLE III

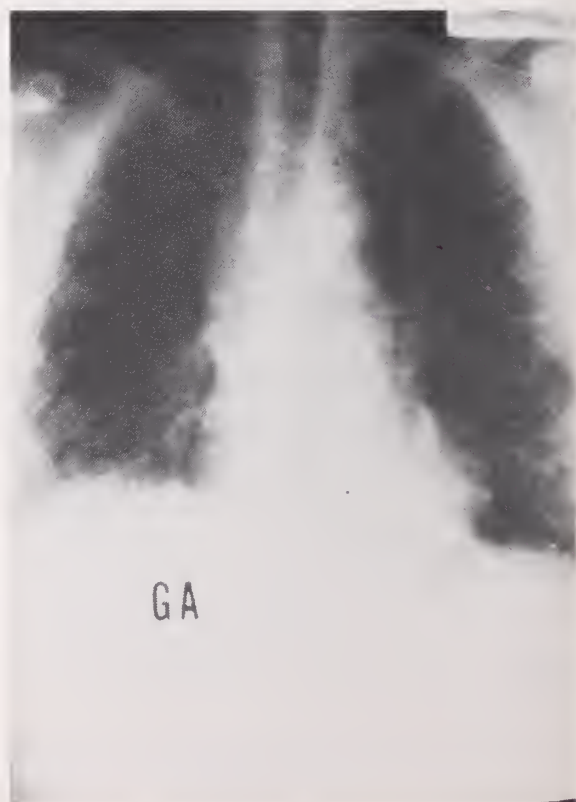
Common Causes of Hypersensitivity Pneumonitis

1. *Aspergillus funigatus* — Bronchopulmonary *Aspergillus*
2. *Micropolyspora Faeni* — Farmer's lung
3. *Thermoactinomyces* sp. — Air conditioner lung

TABLE IV

Blood eosinophil count	Esophageal motility
Immunoglobulins	Bronchograms
Sweat chloride, sodium	Sputum cytology
LE preparation, RA factor	Pulmonary function tests
Serum precipitins for organic pneumoconiosis	Fungal serologies
PPD skin test	Sputum for hemosiderin-laden macrophages

Figure 1



steroids while advanced chronic fibrosis as revealed by this technique probably will be unresponsive to steroids.

Clinical Examples

The following two cases illustrate the above approach to evaluation and treatment.

CASE #1: "Idiopathic Pulmonary Fibrosis"

A 64 year old merchant presented with subtle persistent dyspnea and non-productive cough for nine months prior to admission. Physical findings included "Velcro" (close to the ear) rales, marked clubbing of the extremities, and tachypnea. Pulmonary function studies revealed a vital capacity 50% of predicted, diminished diffusing capacity, and arterial oxygen pressure of 58 torr. Chest films suggested a diffuse interstitial process (Figure 1) and trans-bronchoscopic lung biopsy confirmed advanced pulmonary fibrosis (Figure 2). Rapid decline in the patient's condition could not be arrested by immunosuppressive therapy. At autopsy 5 months later, nodular hobnailed lungs with dense end-stage pulmonary fibrosis were found.

CASE #2: "Farmer's Lung"

A 54 year old farmer presented with rapidly progressive dyspnea of three months duration. He recalled multiple febrile reactions accompanied by dyspnea during

grain harvest prior to the onset of symptoms. Velcro rales could be heard throughout the chest, no clubbing was noted. Serum allergic precipitins were positive for micropolyspora faeni. The only pulmonary

Figure 3

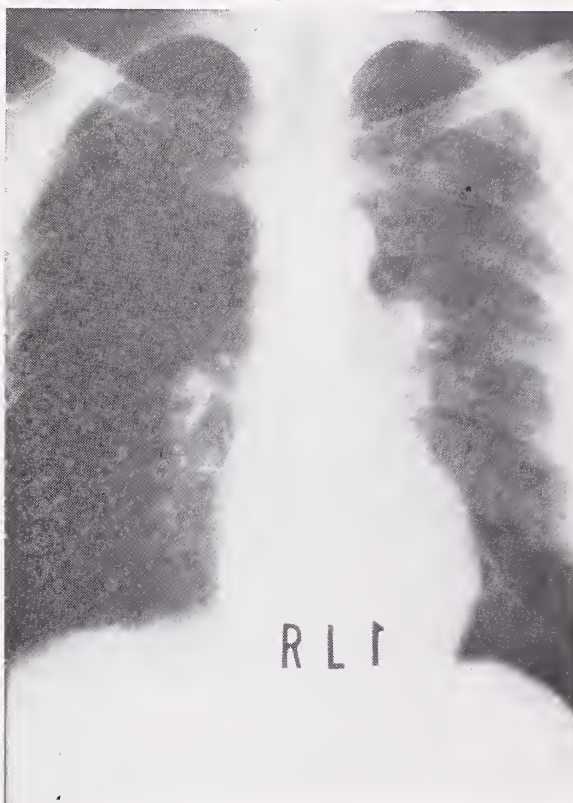
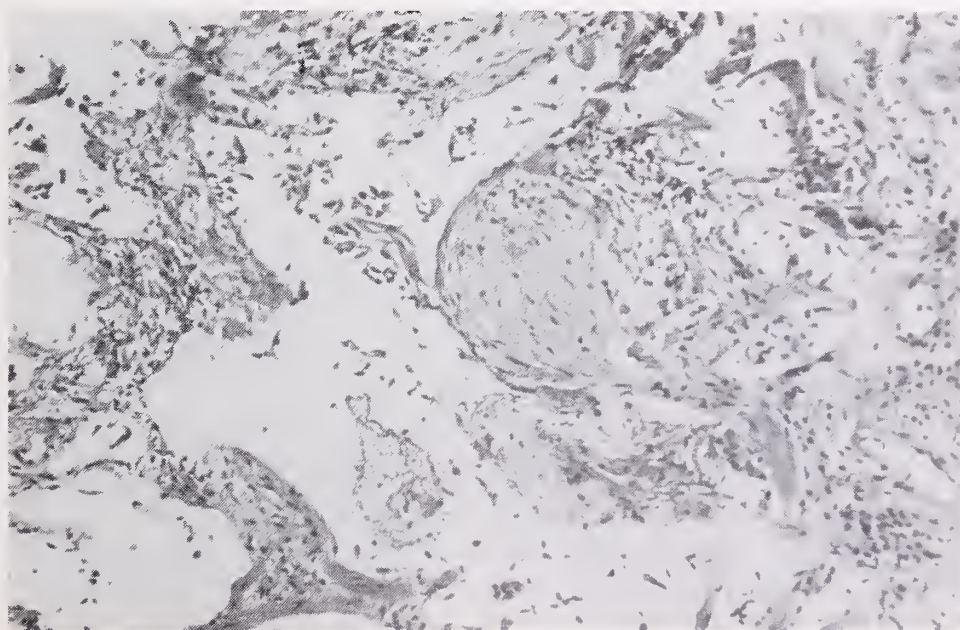


Figure 2



function abnormality was hypoxemia (PaO_2 58 torr). Chest films suggested a diffuse interstitial process throughout both lung fields (Figure 3). Transbronchoscopic lung biopsy demonstrated acute interstitial fibrosis accompanied by foreign body-type giant cells (Figure 4). The patient was treated with high dose steroids for six weeks with rapid improvement in exercise tolerance. At time of follow-up PaO_2 was 85 torr and the chest film was normal. (Figure 5)

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Figure 5

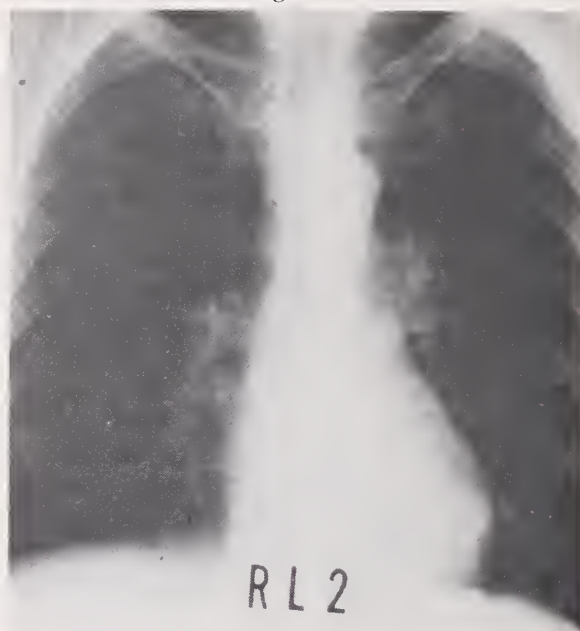
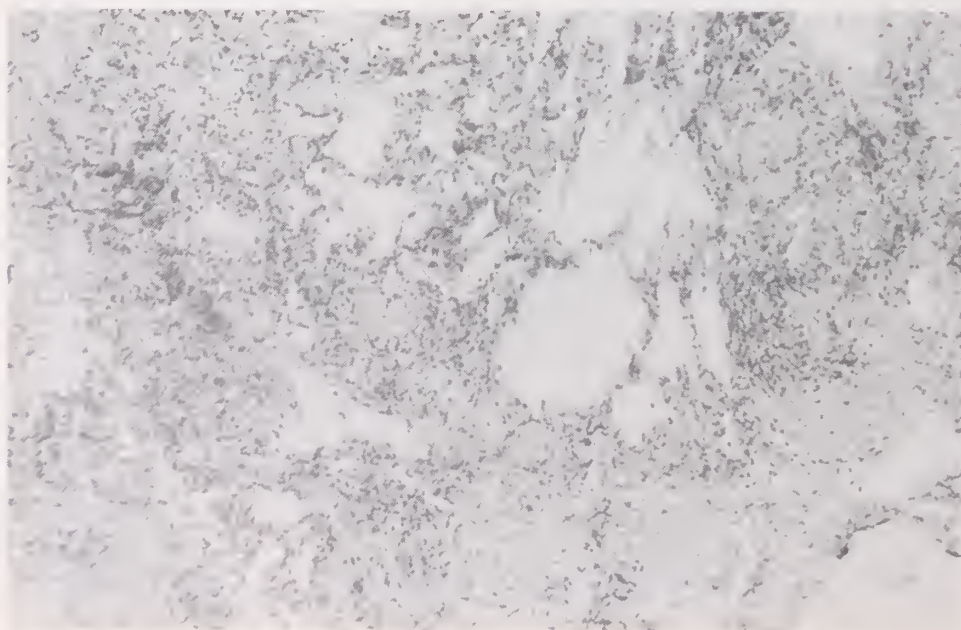


Figure 4



Useful Blood Tests in the Diagnosis and Management of Cancer: A Review

PART II

BLOOD CELLS AND PROTEINS

A review of myeloproliferative disorders and plasma cell dyscrasias is not within the scope of this paper; consequently, an effort will be made to highlight those hematological tests and protein determinations which help in the diagnosis and management of patients with cancer. A few miscellaneous tests will be included of interest.

An elevated *red blood count*, erythrocytosis, is seen as a paraneoplastic syndrome under many conditions: increased erythropoietin from renal and vascular tumors, increased erythropoietin-like substances from fibroids, hepatomas and adrenal cortex and ovarian tumors and via an unknown mechanism with sarcomas. *Eosinophilia* has been associated with liver metastases, hepatoma²³ and most recently with bronchogenic carcinoma.²⁴ *Thrombocytosis* is non-specific in cancer, but remains a serious problem in the management of some cancer patients, particularly those with carcinoma of the pancreas.

An increased sedimentation rate can be useful as a nonspecific indicator of disease activity or correlated with other parameters for more objectivity (as has been discussed previously with copper).

There is no specificity attached to the *serum protein electrophoresis*. The *albumin* is depressed in metastatic carcinoma from malnutrition. Transcobalamin I has been reported in patients with metastatic carcinoma.³¹ *Alpha 1 and alpha 2 globulins* are elevated nonspecifically in malignant disease. A recent report, however, indicates that a pregnancy associated macroglobulin may correlate with the clinical course in breast cancer patients.³² *Gamma globulins* are a fascinating and complex subject of current investigation. The problem of monoclonal gammopathy has been associated with carcinomas of the bronchus, breast and colon, although definite criteria are lacking.

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Quantitative immunoglobulins and immunoelectrophoresis help delineate monoclonal gammopathies and paraproteins. IgA determined by routine quantitative immunoglobulins is elevated in carcinomas of the nasopharynx²⁸ and 11SIgA, which may be a primordial molecule of IgA, has been found in many other carcinomas. Its significance is undetermined.

A *uric acid* level less than 2.0 ng/ml has been noted in many patients with cancer without correlation to cell type.²⁹ An elevated uric acid results from destruction of large numbers of leukocytes as in the myeloproliferative syndromes and leukemias especially those undergoing chemotherapy.

Finally in this eclectic category, hypoglycemia is found in patients with hepatoma, Hodgkin's disease and sarcoma. The mechanism by which the last three tumors cause hypoglycemia is not completely characterized, although insulin-like activity is suspected.³⁰

HORMONES

In general, the endocrine glands produce peptides which we consider normal hormones. A variety of tumors, through a proposed mechanism of de-repression, i.e., cellular de-differentiation to a more embryonic state, also produce polypeptides similar to and often indistinguishable from normal hormones. Ectopic hormone production is usually heterogeneous consisting of hormone and hormone precursors as, for example, proinsulin in insulinoma.⁶²

Most ectopic hormones lack full expression of the appropriate endocrine syndrome. Certain hormones are specific for certain tumors; others produce multiple polypeptides. Drawing upon the APUD theory (amino content precursor uptake and de-carboxylation) an embryological classification of ectopic hormone producing tumors has been developed, which purports to explain why tumors can secrete many different polypeptides.³⁶ Group I tumors are the neural crest derived cells and include carcinoid, oat cell carcinoma of the lung, islet cell tumors of the pancreas, C-cell tumors of the medullary thyroid and thymoma. Group II tumors are derived from the endoderm and mesoderm and include all other neoplasms except pheochromocytoma and related tumors and melanoma which are considered transitional malignancies and constitute group III. The hypothesis is that each tumor in a group can produce all the hormones of that group but not of the other groups.³⁶

The definition of an ectopic hormone paraneoplastic syndrome requires demonstration of the hormone in the tumor or venous affluents. Caveats in the diagnosis of ectopic hormone production have been recently reviewed.⁶⁶ Extirpation of the tumor should abolish the ectopic hormone from the blood; incomplete removal would be signaled by persistence of hormone and recurrence by its reappearance. Diagnosis and management of ectopic hormone syndromes in patients with cancer has been facilitated by the recent advent of radioimmunoassays in the majority of hormones listed in Table 4. In the others, bioassays and indirect diagnosis are necessary.

Ectopic *ACTH* secretion is difficult to determine by radioimmunoassay, but it is technically possible. Usually the diagnosis is an indirect one based on the suppressibility of plasma cortisol. The classic Cushing's syndrome is rarely seen. Incomplete forms are more common, sometimes manifested only by hypokalemia and/or diabetes mellitus. The elevated cortisol alone is not diagnostic of ectopic *ACTH*, but may only reflect the underlying stress of the tumor. *MSH* is usually measured with *ACTH*. Hopefully in the future the *ACTH* level can

be inferred from the radioimmunoassay determination of the *MSH* half of the polypeptide. Of the tumors listed in Table 4 of ectopic *ACTH* syndromes, oat cell carcinoma of the lung is the most common.

Measurement of *HCG*, human chorionic gonadotropin, in the urine has an established place in the diagnosis and management of patients with choriocarcinoma. A radioimmunoassay of blood gonadotropin is available and has the same usefulness, but takes longer and costs more.^{38, 39} Luteinizing hormone is the gonadotropin presumed to be measured, but the literature does not always specify; *FSH*, follicle stimulating hormone, has been documented in lung cancer. Extragenital choriocarcinoma and oat cell carcinoma of the lung, both of which may cause feminization³⁷ are two not so obvious diagnosis for elevated gonadotropin. Sophistication in techniques is such that neoplastic trophoblastic tissue can be distinguished even during pregnancy.³⁹

The diagnosis of inappropriate *ADH*, antidiuretic hormone, continues to be an indirect one, although a radioimmunoassay has been developed and is being used on an investigative basis. An available radioimmunoassay in *ADH* would be immediately useful in the diagnosis and management of patients with cancer. *ADH* is produced by oat cell carcinomas of the lung and by islet and ductal carcinomas of the pancreas. In addition, cerebral metastases cause space lesions affecting the posterior pituitary which initiates *ADH* release.

Radioimmunoassay for serum *parathormone*, *PTH*, is available and is useful, although it takes a month to obtain results. Current controversy and investigation center on the technical aspects of differentiating the heterogeneity of molecules called *PTH* or *parathormone*. Up until recently, serum *PTH* elevations could differentiate hypercalcemia secondary to a parathyroid adenoma in the presence of metastatic breast carcinoma because carcinoma of the breast is one of the few cancers not believed to secrete a *PTH*-like polypeptide, despite one contradictory report.⁴² Overall the role of serum *PTH* in the differential diagnosis of hypercalcemia in the presence or absence of cancer is interesting and most useful. One

opinion is that ectopic hyperparathyroidism seems to be present in overwhelming majority of hypercalcemic patients with cancer even when clinically evident bone metastasis is present.⁴¹

Ectopic *TSH* syndromes secondary to hydatidiform mole, choriocarcinoma or rarely carcinoma of the pituitary are the exception to the generalization that ectopic hormone syndromes lack the full clinical expression. Ectopic *TSH* is a very florid picture of hyperthyroidism. Serum *TSH* levels are readily available and obtainable within two weeks.

Radioimmunoassay in elevated *insulin* levels already has an established place in the work-up of insulinomas. High circulating insulin levels can also be found in oat cell carcinoma of the lung, carcinoid and pheochromocytoma. Insulin-like activity, associated with Hodgkin's disease and sarcomas,³⁰ is usually determined by bioassay.

Insulin and *HGH*, *human growth hormone*, activity are particularly current investigative areas because of their interaction and application to more general problems. In addition to the well known eosinophilic adenomas of the pituitary, *HGH* levels have been documented in non-oat cell carcinoma of the lung and perhaps in carcinoma of the endometrium.

A radioimmunoassay for *calcitonin* on an investigative basis, holds promise of usefulness in the near future. Calcitonin is the hypocalcemic hormone normally produced by the C-cells of the medullary thyroid. In medullary carcinoma of the thyroid, basal level of the hormone is elevated. When the basal level of calcitonin is normal in susceptible patients such as those with multiple endocrine adenomatosis type II, calcium infusion will cause an increase in calcitonin levels, thus providing a reasonable screening test.^{43, 47, 48} If the calcitonin is elevated and medullary carcinoma of the thyroid is discovered, the serum histaminase could be determined to evaluate whether there is metastatic disease or not.²¹ In one study postoperative management of nine patients with medullary carcinoma of the thyroid, elevated calcitonin levels were found before documentation of tumor by clinical or

pathological grounds in four of nine patients and was detected in five of nine in whom complete surgical removal of the tumor was accomplished.⁴⁴ In these patients selective venous catheterization for calcitonin helped to decide operability and surgical therapy. In addition, it is now possible to detect the disease at the stage of precancerous cell hyperplasia.^{47, 48} Ectopic calcitonin has been reported in oat cell carcinoma of the lungs⁴⁶ and perhaps in others.⁴⁹

HPL, *human placental lactogen*, also known as chorionic somatomotropin can also be determined by radioimmunoassay. *HPL* has recently been found in a small percent of many tumors,³⁰ but is classically produced by most trophoblastic neoplasms: gestational, gonadal and extragonadal. Current investigation centers on the hope that placental proteins and their sub-units may serve as tumor markers in men and non-pregnant women.³⁹

Determination of *prolactin* production by radioimmunoassay is still investigational. Elevated levels are found in eosinophilic adenoma of the pituitary, bronchogenic carcinoma and hypernephroma.^{39, 50}

Erythropoietin is usually determined by bioassay and is readily available. Radioimmunoassay is still investigational. An elevated erythropoietin level with or without erythrocytosis is seen in hypernephroma, Wilm's tumor, cerebellar hemangioblastoma, other vascular tumors and hepatoma. Its production is suspected in many other tumors. Erythropoietin levels have been used to follow therapy in Wilm's tumor.⁵²

Serum *gastrin* is the easiest to measure of the endocrine foregut hormones. It is elevated in non beta, alpha or delta islet cell tumors; perhaps also in duodenal carcinoids, melanoma, pheochromocytoma and oat cell carcinomas of the lung. Radioimmunoassay of *glucagon* is available through investigative cooperation for detection in alpha islet cell tumors. Newer gastrointestinal hormones, *VIP*, (vasoactive intestinal peptide), *GIP* (gastric inhibitory polypeptide) and secretin are also detectable in islet cell tumors; however, the tests are not available.

Serotonin is elevated in carcinoids, oat cell carcinomas of the lung, non β islet cell and

ductal tumors of the pancreas, and medullary carcinoma of the thyroid. A radioimmunoassay is available, but following urine HIAA, (hydroxyindolylacetic acid), is more practical as a parameter of disease progress.

Increased plasma *renin* levels are found in renal hemangiopericytomas and Wilm's tumor, and perhaps in hypernephroma, oat cell carcinoma of the lung and other vascular tumors. In a review of six cases of renal hemangiopericytoma⁵⁹ most patients were adolescents or young adults with moderate to severe hypertension and elevated peripheral plasma renin. Tumors were localized by differential renal vein renins because they were too small to be localized by arteriography. The tumors themselves contained increased amounts of renin. Excision of tumor resulted in prompt relief of hypertension.^{58, 59} Similarly relief of hypertension after removal of Wilm's tumor has been reported.⁶⁰

Another new hormone and syndrome is *CRF-like substance*, corticotrophic releasing factor, which is reported in oat cell carcinoma of the lung and pancreatic tumors.⁶³ Whether this is true ectopic production of CRF or trapping of the

hormone in the tumor has not been established.

Prostaglandins are included here because they act like hormones. Despite a vast literature and a journal devoted solely to prostaglandins, their practical usefulness in the diagnosis and management of patients with cancer is limited. Prostaglandin E2 and prostaglandin F2 are elevated in medullary carcinoma of the thyroid with an accompanying diarrhea syndrome.²¹ Other prostaglandins in the ABE series have also been implicated. Of most interest is the evidence for a prostaglandin A secreting renal cell carcinoma.⁶⁵ This prostaglandin had the antihypertensive effect of general vasodilation. Removal of the tumor caused hypertension. Other prostaglandins will undoubtedly be found in association with paraneoplastic syndromes as technical methods become more feasible.

Overall, the potential application of ectopic hormone determination by radioimmunoassay of plasma as a screening mechanism may be useful in the near future, especially in heavy smokers. The expense of the procedures and the low yield of results, however, argue against this.

Results of Pap Smear Mass Screening in an Urban Setting

IN March 1975, a mass Pap smear screening program was conducted in the Omaha area through the cooperative efforts of a large number of local organizations (see Table 1). Coordination of the project was directed by Dr. Roger S. Jernstrom, Chairman of the local Cancer Society's Uterine Task Force Committee and Chairman of the Nebraska Section, American College of Obstetricians and Gynecologists. Dr. Daniel G. Bohi was also active in the planning effort. These organizations amassed a large number of volunteer physicians, nurses, clerical and child care personnel for the 13 locations throughout Omaha as well as Offutt Air Force Base. Some funding for the operation was provided by the local unit of the American Cancer Society as well as National Cancer Institute Grant #N01-CN-45081. The cytologic smears were interpreted at the two University laboratories.

The primary objective of the program was to provide a pap smear, recto-vaginal pelvic and breast examination to women who had not in recent years received such services, and also provide an entrance for medically indigent women into the health care system. Hopefully as a result of this screening, women would then be inclined to seek medical services for other health problems they might have. A secondary objective was to emphasize the need for pap test screening among women 45 and above, i.e., the women not seeing a physician regularly because they no longer need contraception and/cr were past the reproductive years.

A total of 1,150 women were seen during the screening with all but two actually receiving pap smears. Of this number, 43.6% or 501 were 46 or older. Of the 145 patients who indicated they had never received a pap smear, 64 or 44% were 46 years or older. However, it is conceivable that these patients might while they were pregnant have had a pap smear and didn't realize it.

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TABLE I

Douglas-Sarpy County Unit American Cancer Society
Staff and Board Members
University of Nebraska Medical Center
Creighton University School of Medicine
Omaha Medical Society
Omaha Obstetrics and Gynecology Society
Nebraska Chapter American Academy of Family Physicians
Omaha Douglas County Health Department
Douglas County Social Service
Nebraska State Health Department
Parent-Child Center
Planned Parenthood of Omaha
Indian Chicano Health Center
Ehrling Bergquist Hospital, Offutt Air Force Base
Western Electric
Comprehensive Health Association of Omaha
Jewish Community Center
Visiting Nurse Association
Departments of Black Studies and Sociology, University of Nebraska at Omaha
Public Relations Department, Northwestern Bell
Public Relations Department, District 66 Schools
Public Relations Department, Northern Natural Gas
Mrs. Jaycees
Omaha Jaycees
Greater Omaha Community Action
News Director, WOWT-TV
Promotion Director KETV-TV
Station Manager KEZO
Omaha, Waterloo, Elkhorn, and Bennington Women's Clubs
Sarpy County Extension Service
Outreach
Civil Defense Coordinator
Young Matrons Club
Bozell and Jacobs
Grocery Stores
Shaver's
Baker's
Food City
Hinky Dinky
Safeway

Four hundred eighty-seven women were menopausal or postmenopausal.

The guidelines used to determine socioeconomic levels were based upon Office of Economic Opportunity guidelines which reflect \$4,550 or less pooled family income for a family of four. Low income was determined to be from poverty to 200% of poverty, medium income at 201-450% of poverty and high income at 451% or more of poverty. Thus, 36.9% of the women were at the low or poverty income levels while 49.0% were medium income. It should be noted that during this time there was a higher than usual rate of unemployment which may have been reflected in these figures. Also of interest is the fact that 14.4% or 166 of the women served were of a minority race.

Among the cytologic abnormalities detected (Table II), there were 23 classified as either atypical probably associated with inflammation, atypical, dysplastic or suspicious. Thus the percentage abnormal was 2.03% which appears quite close to the national average. If the 106 patients falling into the category "Negative Atypical Cells Associated with Inflammation" are included, the percentage becomes 11.39%.

Abnormal physical findings were also tabulated and revealed a total of 339 abnormalities noted. These ranged in severity from an asymptomatic rectocele and/or cystocele to postmenopausal bleeding coupled with a breast mass and suspicious pap smear. Table III (right) indicates the abnormalities by area.

Significant numbers of abnormalities were as follows:

Breasts — 9 masses, 12 cystic lesions

Vulva — 2 Bartholin cysts

Vagina — 99 cystocele and/or rectocele symptomatic or asymptomatic, 36 trichomonas

Recto-Vaginal — 14 hemorrhoids

Cervix — 10 polyps, 2 endocervical polyps, 22 erosions, 7 cysts

Uterus — 12 enlarged, 18 prolapsed, 13 fibroids suspected

Adnexae — 14 masses

All patients with abnormalities were notified by mail and a copy of the medical record and pap smear result was sent to the private physician or clinic indicated by the patient. In addition, a telephone call was made to the patient as a double check.

Examples of several case histories and some of the more pertinent findings are indicated in the following brief case presentations.

Patient No. 1; a 22-year-old married white female using no contraceptives. Special Clinic finding was a nodularity in the posterior cul-de-sac and post surface of uterus. Admitted to hospital for an examination under anesthesia and celiotomy with excision of endometrial implants from the left uterosacral ligament. Surgery was performed and the left uterosacral ligament was noted to have a 2 x 2 cm. irregular firm nodular mass. Endometriosis was confirmed. Evidence of old endometriosis involving the ovary was found. Pathologic findings revealed three fragments with no evidence of malignancy.

Patient No. 2; a 68-year-old female was diagnosed as having a cystic area in the upper outer quadrant of the right breast and was hospitalized immediately following the examination. A radical mastectomy and bone

TABLE II
Abnormal Pap Smears

Number	Classification
15	Atypical probably associated with inflammation, repeat three months
106	Negative atypical associated with inflammation
2	Atypical-repeat
5	Dysplastic
1	Suspicious
129	Total

TABLE III

Area Involved	*Number	% of Total Findings
Breasts	29	8.6
Vulva	9	2.7
Vagina	163	48.0
Recto-vaginal	17	5.0
Cervix	58	17.1
Uterus	46	13.6
Adnexae	17	5.0
	339	100

*Reflects multiple findings in patients

scan were later performed. Physician reported definite malignancy.

Patient No. 3; a 62-year-old female was diagnosed as having post menopausal bleeding. Cytology results reflected cells suspicious for malignancy. Cone and biopsy were performed followed by a radical hysterectomy, pelvic lymph node dissection, and cystotomy. Diagnosis was well differentiated invasive squamous cell carcinoma of the cervix Stage 1B.

Summary

An intensive community wide program of free screening for breast and pelvic pathology was conducted in the greater Omaha metropolitan area in March 1975. A positive spirit of physician, volunteer, and agency cooperation made the effort possible. A total of 1,150 women were screened with 339 physical abnormalities detected and abnormal cytologic smears found in 129.

Community Pediatrics and Day Care

Introduction

THERE are numerous professional articles, government reports, and lay articles stressing the need for day care and comprehensive programs including a health component.¹⁻⁸ A review of the pediatric literature, however, despite the guidelines, recommendations, and need for a health program in day care and role of the pediatrician, revealed few articles which state "how to do."⁹⁻¹²

The Community Pediatric Division of the Creighton University School of Medicine undertook the task of exploring with St. James Day Care Center the possibility of developing a health care program. For several years many of the children were seen at the Ambulatory Services on an episodic basis. Preliminary discussions over a one-year period explored the possibilities of cooperatively developing a health program. As neither agency had any excess funds that could be contributed to a health program, it was agreed at the beginning of our discussions that this would be the "putting together" with the component parts that we already had in existence, and to extend efforts to develop the missing parts. Subsequent discussions with the day care staff agreed to follow the guidelines of the Committee on Community Health Services of the American Academy of Pediatrics to include the following: 1) Should make a planned effort to protect, maintain, and

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improve the health of its charges. 2) Should supplement the parents' efforts to provide child health services by making use of the existing community resources to help meet the needs of the individual child. 3) Should not by an act of commission or omission do anything which would injure the health of children in its care. 4) Should insure adequate health standards for the agency's personnel. 5) Should include a pediatrician or, in the absence of such an individual, a physician particularly interested in the overall needs of children on the planning and organization staff of the day care agency. 6) Shall include evaluation as an integral part of health planning operation.^{13, 14}

With these objectives as a goal, the Community Pediatrics Division and the Saint James Day Care Center of the Archdiocese of Omaha agreed to establish a health program.

Program Development

Saint James Day Care Center is a non-profit organization providing day care for 200 children from 2 to 10 years of age and a day care home program for 25 infants. It is the largest day care program in the state and presented an ideal situation to develop a health program because of its excellent facilities, commitment of the director and staff, and the group of children was large and diverse so as to present challenging problems. The day care center has 1½ time equivalent family workers, and a full time licensed practical nurse. The center serves predominantly single parent families who are either working, completing school, or in training programs. In an effort to have broad representation of children from various socioeconomic areas, the center encourages city wide enrollment.

The Director of the Division of Community Pediatrics provided overall supervision for the medical component, and the Fellow in Community Pediatrics was committed to spend as much time as needed in developing and implementing the program.

During discussion periods with the day care center staff, it was decided that the program would be divided into three components:

1. To establish a child health program which would include the following:
 - a) Basic health maintenance.
 - b) Consultation and a referral system.
 - c) Evaluate the incidence of child abuse and show how the program could help those children and their families.
2. To establish a health education program for the staff and children.
3. To establish a health education program for the parents.

Program Implementation

The Saint James Day Care Center arranged for living quarters on the day care campus for the Community Pediatric Fellow and set up a large, attractively decorated room for the health program where consultations, physical examinations, screening procedures, and conferences with parents could be held. A health record was estab-

lished for all the children and maintained in the day care center. If the children were registered at the Creighton Health Center, the form, being the same one used in the Health Center, was sent to be placed in the central health record. If other physicians or clinics requested a copy, it was available to them.

The Department of Pediatrics supplied the equipment for micro hematocrit, urinalysis, eye charts, immunization vaccines, and tine tests. Setting up a special room at the day care center for health gave a special status to the program. Through the Day Care Newsletter, the parents were informed of the new facilities and services available at the Center.

Initially the existing health records of all children were reviewed. The children who had private physicians were requested to bring in a report of physical examinations and immunizations. All others were examined by the Fellow in Community Pediatrics, on an appointment basis in the Health Room. Prior to the physical examination, the parents were requested to fill out a health questionnaire, history, and immunization record. The examination itself included a complete physical examination, urinalysis, hematocrit, vision screening, and gross hearing testing. Whenever a child was found to have a problem that could not be managed in the center, appropriate referrals were made. The most common were for orthopedic, speech and hearing, and child abuse and neglect.

The day care nurse was helpful in carrying out the plans of management regarding various children, and quickly became the coordinator of the entire health program. The children were not afraid to come to the examination room, as it was a familiar place, and they knew the nurse well.

A case conference program was developed to improve adequate communication between the staff and to establish agreed upon goals for child management. Case conferences were held on a monthly basis and whenever necessary. During the conference, the teacher, social worker, day care nurse, supervisor, and pediatrician would discuss a child with special problems and arrive at

a management plan. Frequent consultations made it possible to adjust plans for better participation from all the staff involved, with subsequent quicker responses of more acceptable behavior and happier children. The staff's ability to function with more ease and assuredness became more evident as the months passed. Referrals for needed services elsewhere were handled more efficiently.

Results

In 5 months, 79 children were examined. 25 of these children had incomplete immunizations, and 2 had none; 77 had not had a tine test; 11 failed the vision test; 5 hematocrits were below 33, but no urine screening abnormalities were found. Referrals were made for the following: 2 orthopedic, 2 neurology, 1 child development, and 1 cardiology.

The day care nurse is in a training program so that hearing screening testing can be done at the center. Children with possible hearing loss were referred to the Boys Town Institute for Communicative Disorders where a complete evaluation is done.

In an effort to respond to the special needs and problems within the community, the center has become actively involved in screening suspected abused and neglected children, developmentally delayed children, and those with special problems. 25 abused and neglected children were identified, and an additional 15 children were potential or suspected cases. Because of the daily contact with these children, the nurse was able to be a support for the parent. The family and child care workers were able to establish an accepting and supporting relationship with these families and to make appropriate referrals to other community resources.

As the program developed, a series of meetings were held with the Community Dental Program of the Creighton University School of Dentistry. The Director of the Community Dental Program arranged for a screening program to be done at the day care center. This was done with the day care staff, dental students, and faculty so that all of the children received a dental screening on the campus. In addition, the children were

taught oral hygiene and proper tooth-brushing. Of the 148 children screened, 125 were found to be normal. 23 children were found to have dental decay or periodontal disease, and 3 children required immediate care. The children were referred to a dentist of their parents' choice or to the University Dental Clinic. The results of the screening program are shown in Table I.

Health Education Program for Staff and Children

Staff programs were both formal and informal. The formal presentation at staff meetings covered such subjects as enuresis, feeding problems, management of upper respiratory infections, gastroenteritis — in short, the usual range of childhood's common diseases. However, the most "education" came in the frequent informal discussions with various staff members regarding a variety of problems. Hallway and other chance meetings with the pediatrician were also numerous, and the staff enjoyed the informal discussions on topics relating to health.

Health Education Program for the Parents

The health education program for the parents presented many difficulties. Many of the parents said that they could not attend as they had no baby sitter, were too tired, or not interested. The parents had an extremely poor attendance at the health programs which were developed with the assistance of some of the more interested parents. Programs were held on a monthly basis. These were informal sessions and common topics such as enuresis, diet, immunizations, and behavior problems were discussed. Those that did attend expressed a desire to have the program on health subjects continued and were positive in their remarks. These parents felt that they had spent their time in a useful way and encouraged other parents to join in the discussions. As with any other

Table I

Screening Program	# Examined	#Failures	% Failures
DENTAL	148	23	15.5
VISUAL	79	11	13.9
IMMUNIZATIONS	79	25	31.6
TINE	79	77	97.5
HEMATOCRIT	79	5	6.3
URINE	79	0	0

program involving parents who must work or have other attendant problems, squeezing extra time for health programs is extremely difficult. However, by developing a nucleus of interested and concerned parents, it is hoped that this group will develop the program to involve more parents.

Discussion

A literature review of the past 5 years on the role of the pediatrician in day care revealed few studies describing the establishment of a health program. The study by Guraraj describes a pilot health program at one center which was then applied to a cluster of centers using available community resources.^{9, 10} The New York City Infant Day Care Study by Rosenbluth, described a five year longitudinal study designed to obtain needed information to plan for quality day care for infants.¹¹ Meyer described a joint project of the Infant Welfare Society of Chicago, the DePaul Settlement and day nursery, and Northwestern University where they evaluated the health needs including medical, dental, and psychological aspects of children and implemented a health program. They discovered an average of 2 problems per child.¹² All of the studies stressed the deficits in health care for day care children.

Our beginning experience in this program gave us some indication of the health status and problems of the children presently in the center. There was great difficulty in obtaining the immunization and other health records. Despite Community Immunization Programs, 31.6% of children had incomplete immunizations. The reasons the parents gave for the lack of immunizations were — lack of time, always sick when child was to have the shots, was seen only when ill, or not aware of the need or reasons for immunizations.

Our goal to study child abuse and how day care can be helpful in handling the problem was hampered by the change in the State's plan for Title XX. This change made most of these children not eligible for day care and they had to be dropped from the program. Before the change in Title XX, the day care staff worked with these parents on a daily basis, and were able to help rehabilitate many of these parents. Day Care maintains the parent-children relationship, unlike foster

care and at the same time supports the parents in obtaining needed help.

Evaluation

In evaluating the role of the pediatrician in day care, the staff was positive. The overall situation of working with abused and neglected children became less threatening as the support of the pediatrician's knowledge and expertise evolved. Besides the direct contact between the doctor and child with the parent, the consultative role with the staff was felt to be vital in setting up individual programs for children. The availability of ongoing discussions strengthened the process.

Improving the health status of children in day care is a challenge to the pediatrician. Basic health maintenance is lacking in day care and much can be done to improve the health of these children by interested pediatricians. Education of staff and parents can go a long way in improving the level of health in these children.

The experience of Community Pediatric Division and a Day Care Center in programming and developing a health program have much in a coordinated manner to offer the children. One of the responsibilities of the Community Pediatric Program is to reach out and to explore newer and improved methods of providing and delivering health service to children. A Day Care Program with an interested and committed staff makes an ideal vehicle to develop such a program.

Summary

A brief review of the literature on Pediatricians and Day Care is presented. An ongoing study to develop a comprehensive health program in a day care setting is described and the problems encountered are discussed. The most important ingredient for success in developing a health care program is the commitment from both the Medical and Day Care Program Directors to use their respective resources in a cooperative and coordinated way, and to give leadership to the health program.

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Report of an Unusual Case of Occult Uterine Rupture in Pregnancy

THE integrity of the scar from a previous cesarean section is of great interest and concern to all practitioners who care for pregnant patients. The incidence of rupture of the uterus is reported to be about two per cent in all patients. There is a somewhat lower risk of rupture in patients who have had a low cervical cesarean section. There is a difference between rupture of a cesarean section scar and dehiscence or occult rupture. Rupture refers to separation of the edges of the old scar throughout its length and rupture of fetal membranes with connection between the uterus and peritoneal cavities. In those circumstances, all or part of the fetus is usually extruded into the peritoneal cavity and, in addition, there is often massive bleeding. Dehiscence differs from rupture in that the fetal membranes are not ruptured and no part of the fetus therefore is extruded into the abdominal cavity. Bleeding is usually absent or minimal, and in most cases, the separation does not extend throughout the entire length of the scar. Occult ruptures occur gradually and are painless, whereas true ruptures are sudden, explosive and almost always are associated with severe pain and shock.

Report of a Case of Occult Uterine Rupture

The patient is a 29 year old gravida IV,

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para III, white female whose last menstrual period was October 14, 1975. EDC was July 20, 1976. She has the following obstetrical history.

She underwent a primary cesarean section in October, 1965, for cephalopelvic disproportion. This was reportedly a classical cesarean section. In Nov., 1967, the patient was again pregnant and underwent a repeat classical cesarean section. In Jan., 1971, the patient was admitted to the hospital in labor at 38 weeks and a repeat classical cesarean section was carried out at that time. She had done well, reportedly, during all three of these previous pregnancies.

The patient was seen in December, 1975. A diagnosis of intrauterine pregnancy at 8 weeks gestation was made at that time. The patient had a very uneventful pregnancy during this time with normal intrauterine growth. The patient's initial weight was 93¼ lbs. Her weight at term was 117¼ lbs. At 32 weeks gestation, the patient was seen in the office for occasional contractions. Pelvic examination revealed the cervix to be closed, and no evidence of contractions noted. The

patient was asked to return the next day, which she did, and she reported that the contractions had ceased. She had no pain at that time. On July 12, 1976, she was seen in the outpatient department for an amniocentesis to determine fetal maturity for the upcoming cesarean section. The amniocentesis was carried out without difficulty. It was noted at that time that it was very easy to obtain amniotic fluid on this patient, and I only had to insert the spinal needle about 3/8 inch before obtaining fluid. The infant was determined to be vertex presentation. Fundus was 25 cm. Fetal heart tones were 142. The patient and I had commented for the last month of pregnancy that it was very easy to feel fetal parts through the abdomen. The patient was scheduled for repeat cesarean section on July 16, 1976. The LS ratio was reported as being mature. The creatinine on the amniotic fluid was reported as being 1.8.

The patient called me at home, however, about 3:00 a.m. on July 14. She stated that she had had several mild contractions for about one half hour. She was instructed to go to the hospital and I saw her in the emergency department approximately 30 minutes later where she was having mild contractions. Surgical consultation was obtained and the patient was scheduled for a repeat cesarean section. The surgery was started at about 4:15 a.m. using general crash induction anesthesia. Upon incising through the fascia in a midline incision, the amniotic sac was immediately encountered. The amniotic sac was incised, and a living white male infant was delivered without difficulty. One minute Apgar was 8, five minute Apgar was 9. The intraabdominal cavity was then carefully inspected and it was apparent that the uterus had ruptured.

The uterus was very carefully inspected. There was no free blood in the amniotic sac or in the abdominal cavity at this point. The uterus had completely ruptured along previous classical scar and was completely folded open and flat. The divided edges were completely healed. The placenta was attached in the midline on the posterior wall of the uterus. It was our opinion that the rupture had occurred quite some time prior to the surgery. As the placenta became separated, there was considerable bleeding from the uterus. There was no way to quickly repair the uterus so it was decided to perform a supracervical hysterectomy at that time. A second IV line was immediately started, and the patient was crossmatched for four units of blood. A supra-cervical hysterectomy was done without difficulty, and the patient received three units of blood during the postpartum period. The mother did extremely well during the postpartum period.

There is no way to pinpoint the exact time at which the uterus ruptured. We felt that because of the absence of blood in the abdomen and the fact that the edges of the uterus were completely healed, this would indicate that the rupture had occurred quite some time prior to her surgery. In retrospect, this would account for the very easy palpation and identification of the fetal parts and the ease at which the amniocentesis was accomplished. The mother was questioned quite carefully during the postpartum period and reported no symptoms which might have been suggestive of the uterine rupture.

Both the mother and the infant had uneventful postpartum and postnatal courses and were dismissed home in excellent condition on the 7th postoperative day.

Obesity: Definition, Measurement, and Some Causes of Treatment Failure *

FAT is an essential component of cell structure and serves important functions in the body. It is the means of storing excess energy. However, excessive accumulation of fat in the storage areas of the body — obesity — is associated with increased morbidity and mortality, and it is therefore considered a disease state. Dublin¹ has clearly shown the relationship of obesity to longevity.

According to Yudkin² obesity differs in several important respects from other diseases. First, it is the most common nutritional disorder in this country. Second, almost every individual, whether health professional or lay person, has a strong and often unshakable view as to its cause and probable cure. Third, the views held by scientists and lay people are often very different. A misunderstanding between the practicing health professional and his patient may be responsible for failure to prevent and cure obesity. It is therefore important to bridge the gap between the scientists, health professionals, and the lay public.

In theory, it is easy to define obesity — excessive accumulation of fat in storage areas of the body — and overweight — increase in weight due to increased lean body mass. However, in practice difficulty arises, because the definitions should encompass the following three features:

1. a clear definition of what constitutes excessive accumulation of fat,
2. standards for measuring fat accumulation, and
3. an indication of when the obesity should be treated.

According to Davidson and Passmore³ obesity requires treatment when the deposition of fat has raised the body weight by 10% or more above the standard weight for height. Others suggest that treatment is required when a person is 20% or more above the standard weight for height. Shukla et al⁴ define obese babies as those who are 20% to

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40% above expected weight, and overweight babies as those 10% to 20% above the standard weight.

Furthermore, differentiation of a heavy, muscular person from one who is obese may be difficult. There are people who are about 10% above the desirable weight but who suffer at present no disability from this. Should we insist that they lose weight even though we may deprive them of some pleasure? On the other hand, another person may have little excess fat but be disabled by osteoarthritis of the knee or exertional dyspnea due to heart or lung disease. This person would benefit from weight loss. Should it be recommended to him?

It is clear, therefore, that weight alone cannot be taken as a criterion for diagnosis of obesity. To clarify the difference between obesity and overweight and to define when to initiate treatment, it is necessary to measure the amount of fat in the body. A number of techniques are available. Some are simple but not precise, while others are accurate but laborious to perform. The various methods are:

1. Estimation of relative weight.
2. Measurement of subcutaneous fat thickness by
 - a. skinfold thickness calipers
 - b. radiographs
 - c. ultrasonography
3. Fat soluble gas method.

*Partly based upon a lecture delivered to health professionals for the Dairy Council of Central States, Inc. and the Visiting Nurses Association meeting on April 6, 1976.

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4. Estimation of lean body mass from total potassium estimation.
5. Methods based on total body water estimation.
6. Methods based on body density.

ESTIMATION OF RELATIVE WEIGHT

Relative weight is defined as observed weight expressed as a percentage of desirable weight. In this context, desirable weight means that weight associated with lowest mortality experience. Some investigators⁵ have questioned whether the relative weight indicates the amount of adipose tissue in an individual. Lesser and his associates⁶ found a close correlation between the relative body weight and body fat among men 17 to 89 years of age and between women of 16 to 38 years of age. However, the correlation for women 52 to 73 years of age was poor. Lesser's group had defined obesity by relative weight and compared it to the body weight of fat measured by soluble gas method.

According to Garrow,⁷ the most compelling arguments for the use of relative weight as a measurement of obesity are the ease and accuracy of measurement and the convenience of the method. Relative weight is the basis on which life insurance actuaries have shown increased mortality associated with overweight. Some complications of obesity, such as osteoarthritis, are related to actual load on the joints rather than the proportion of fat in the body.

For children the height age and weight age are calculated from the growth chart. Weight age is the chronologic age in the 50th percentile of a given weight on a growth chart. Height age is similarly the chronologic age at the 50th percentile of a given height on height chart of the growth curve. Advancement of similar magnitude in height age and weight age relative to chronological age is associated with a large child, however, the weight age greater than height age, particularly by 1 year or more is generally associated with obesity.

MEASUREMENT OF SUBCUTANEOUS FAT THICKNESS

A. By skinfold thickness calipers

Since the largest stores of adipose

tissue are subcutaneous, an estimate of the amount of subcutaneous fat is a good index of obesity. This is most conveniently done by pinching a fold of the skin with the underlying fat layer and measuring the thickness of this fold with calipers; care is taken not to include the muscle. The caliper is designed to exert a constant pressure over a wide range of openings. Sites at which the skinfold thickness are usually obtained are:

1. Back of the mid-arm (triceps).
2. Lower angle of the scapula (subscapular).
3. Just above the iliac crest (supra-iliac).
4. Paraumbilical region.

Even though some investigators^{8,9} have questioned the relationship between skinfold thickness and adipose tissue, others^{10,11} have reported good correlation. Tables 4, 11, 12, 13 are available both for children and for adults giving the average values for a skinfold thickness.

B. By soft tissue radiography

Subcutaneous fat thickness is easily measured in a soft tissue radiography, but the patient receives unnecessary radiation exposure. This method is therefore not recommended.

C. By ultrasonic photography

This technique avoids the radiation hazard, but the demarcation between the muscle layer and subcutaneous fat is poor, unless the points chosen are over bone, such as the iliac crest and greater trochanter. The apparatus, however, may become a standard method for estimation of adipose tissue.

FAT SOLUBLE GAS METHOD

This technique depends upon the principle that a number of benign gases which are soluble in fat, such as krypton, xenon, and cyclopropane, will dissolve in the body fat until an equilibrium is reached. At that point, the partial pressure of the gas in fat equals the partial pressure in the inspired air, and no further uptake of the gas will occur. When the solubility of the gas in fat at

body temperature, the equilibrium concentration and the amount of gas taken up are known, the total body fat can be easily calculated. The disadvantage of the technique is that it involves sealing the subject into an airtight breathing circuit for the time (about 2 hours) needed to reach equilibrium.

TOTAL BODY POTASSIUM METHOD

Potassium content of the fat-free body of an adult is fairly constant at about 69 mM/kg, and the potassium in the body is almost exclusively in the lean body compartment. Therefore, if the total potassium content of the body is known, then the lean body mass can be calculated, and the subtraction of the lean body mass from the total body weight gives a measure of adipose tissue. The human body contains a naturally occurring isotope of potassium (K^{40}), which emits gamma rays of high energy. To measure potassium, the body is enclosed in a specially designed chamber and gamma rays are counted. Then the total body potassium can be calculated. The technique has several disadvantages. The person must lie still in the chamber. In measurement, the background radiation must be subtracted. Additionally, there are some theoretical difficulties. Various tissues of the body have different potassium concentrations; for example, the skin has 23.7 millimole per kilogram, the kidneys 57, the heart 66.5, and muscle 92.2. In a well-nourished adult, the various tissues may be represented in a fairly constant proportion and the lean body mass may be constant, but in extreme cases of nutritional disturbance, the assumption is fallacious.

METHODS BASED ON TOTAL BODY WATER ESTIMATION

It is fairly easy to measure total body water by giving a known amount of heavy water or tritiated water and determining the dilution of this water in the body fluids after equilibrium has been attained. Since adipose tissue contains little water, the assumption can be made that the administered water is in the fat-free body and that the lean body mass in an adult contains 72.5% water. Therefore the lean body mass can be calculated if the mass of total body water is known. Total body fat may be calculated by

subtracting this figure (lean body mass) from total body weight. However, the original assumption is not valid in children and in obese subjects. The estimate of total body fat by this method in such persons is therefore likely to be imprecise.

METHODS BASED UPON MEASUREMENT OF SPECIFIC GRAVITY

Human fat at body temperature has a specific gravity of 0.9; mineral, 3; protein, about 1.3; and water, 1. Obviously it is impossible to calculate the proportion of these four variables from specific gravity measurement. But if the assumption is made that the specific gravity of the lean body mass which includes water, protein, and mineral, is 1.1, then the fat content of the body can be calculated from the measurement of the whole body specific gravity.

To measure the body specific gravity it is necessary to measure the weight and the volume of the body. The subject is weighed first in the air and then submerged in water. The apparent loss in weight under water equals the weight of the volume of the water displaced.

The disadvantage of the underwater weight measurement is that it is troublesome and even alarming to some subjects. Small children cannot tolerate this procedure. Furthermore, volume submerged is not the same as volume of the body tissue, because the gas in the lungs and in the gut will also contribute to the volume of water displaced when the subject is totally submerged.

It is clear that most of these methods cannot be applied in the usual clinical practice. Therefore, a selection is made from the above described methods on the basis of simplicity of performance and reasonable accuracy when applied to a population. Two such methods are: (1) the estimation of relative body weight and (2) the estimation of skinfold thickness by caliper. A number of studies have demonstrated extremely good correlation between skinfold thickness and body fat. Average skinfold thickness at various ages and in different sexes has been described by a number of authors. These can be used if the relative weight proves unreliable. A professional football player is heavy but not necessarily fat, and in this

instance, the subcutaneous skinfold measurement will be useful in differentiating him from an obese person.

RISKS

Obesity is associated with increased incidence of a number of diseases and with death. Reduction of weight results in decreased incidence. This subject has been reviewed by a number of authors^{1, 14, 15} and will not be discussed here.

TREATMENT FAILURE

Sometimes, even with a reducing diet, weight loss does not occur. It is necessary for the physician to offer an explanation for this or the patient will become discouraged with the dieting.

The extent of weight loss depends upon the energy value of the component of the body which is being lost. For example, about twice as much glycogen as fat is needed to provide an equivalent amount of energy. Thus weight loss will be greater when glycogen supplies the energy than when the fat stores are being used. A knowledge of this principle will help in understanding the cause of treatment failure. The following list includes some of the causes of treatment failure.

1. Prescription of a diet too high in calories.
2. Noncompliance with the diet, either through deliberate neglect or misunderstanding.
3. Alteration in proportion of body compartment.
4. Sodium and water retention.
5. Drastic reduction in metabolic rate which equals the caloric intake.

Prescription of a diet too high in calories.

Prescription of a fixed-calorie diet without knowledge of the work habits or life style of the patient may not provide enough reduction in calories for weight loss to occur. This is particularly important in cases of children in whom an additional factor, growth velocity, has to be considered. A child who shows pubertal growth spurt or whose growth velocity otherwise is greater will need more calories than a child of similar height and

weight who is not growing as fast. Diets for the two children must be different.

Noncompliance with the diet.

The most likely reason for refractory obesity is that the patient has not in fact kept to a diet as was intended. This failure to follow the diet may be either conscious or unconscious. It is the most common cause of treatment failure in children and housewives.

There may be genuine misunderstanding about the rules on the diet. This may happen when the dietary advice is given in a hurry, when the patient's general knowledge is poor, or when the patient has limited mental capabilities.

Alteration in proportion of body compartment.

A patient may complain that initially he loses weight quite well, but after about a week, the weight loss ceases. He may say that in order to lose any weight he has to starve himself, that eating even a slice or two of bread results in weight increase. Both these complaints may be quite true and may be explained as follows.

The patient who starts on a reducing diet of 500 kilocalories per day, for example, is in negative energy balance. At first this energy deficit will be filled from the glycogen pool, and the person may obtain a weight loss of about 600 kilograms a day. After about one week, the glycogen pool is exhausted so that the energy deficit is made up mainly from adipose tissue. The rate of weight loss for 500 kilocalories worth of adipose tissue is only about 80 grams per day. Since the average bathroom scales do not reflect such a small change, it is not difficult to understand that a patient who had observed a weight loss of 600 grams per day for the first week should conclude that he is making no progress when the loss drops to the barely detectable 0 to 80 grams a day. If at this stage he is not encouraged, he may give up the diet, and he will rapidly gain weight as glycogen stores are filled.

Sodium and water retention.

After starvation, a small amount of carbohydrate would inhibit sodium excretion and hence cause an increase in body water and body weight. Electrolyte balance studies

of subjects, who were fed a very small amount of carbohydrates for six days, then starved for seven days, and finally re-fed the same small amount of carbohydrates for six days, demonstrated that although the total energy intake during the last period was only 610 kilocalories and the subjects were certainly in negative energy balance, the body weight significantly increased. Ketoacidosis of starvation provides the necessary ion for excretion of sodium, however if a small amount of carbohydrate is given, sufficient to reduce ketosis and rapid protein breakdown, there is a temporary sodium retention which accounts for weight gain. It is unlikely that this mechanism is an important cause of treatment failure in most patients.

Drastic reduction in metabolic rate which equals the caloric intake.

This is the least likely explanation for a patient's failure to lose weight on a prescribed diet. It is unlikely that the person's metabolic rate has been reduced so much that he can maintain energy balance on a very small energy intake. However, this is the explanation which most obese patients prefer as the cause of their difficulty. On careful investigation, the previous explanations are more commonly found to be correct.

A simple way to discover if a patient really does maintain weight on a low-calorie diet is to prescribe 2 to 3 pints of milk a day. This diet has known calorie content, is readily available, is easily measured, and contains low and constant amounts of sodium and carbohydrates. As a test diet for a short period it will be useful in answering the question whether the subject will lose weight on a given caloric diet.

In managing obese patients, the physician should be careful to differentiate simple obesity patients from those with endocrine and metabolic diseases as the latter patients are particularly difficult to manage. A few of the important endocrine and metabolic diseases are: hypoparathyroidism, pseudohypoparathyroidism, Cushing's syndrome, Frohlich's syndrome, Prader-Willi syndrome, Lawrence-Moon-Biedl syndrome, Klinefelter's syndrome, multiple x syndrome and hypothyroid-

ism. Most of these conditions are associated with short stature, other physical stigmata, and impaired intelligence. These signs help in differentiating these subjects from those with simple obesity. Salient features of these diseases are described by Collip.¹⁶

SUMMARY

Obesity is defined as excessive accumulation of fat in storage areas of the body, and overweight as increase in weight due to increase in lean body mass. These two states can be differentiated by estimation of relative weight and by measurement of skinfold thickness. Sites most useful for assessment of obesity are the tricep skinfold and the subscapular skinfold. Other methods of measuring adipose tissue are not useful in clinical practice. Most frequent cause of treatment failure is in noncompliance with the diet which may be due to deliberate cheating or a misunderstanding of the diet. Secondary obesity, particularly in those not responding to proper treatment, must be considered in obese patients.

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Down Memory Lane

1. Blood transfusion has captivated the medical attention within the last few years.

2. We have two homes where unmarried girls may come and stay before the birth of the babies.

3. The trend of the times is toward operation, and more operations.

4. Tularemia has attracted unusual attention in the middle west during recent months due to its recent invasion of these parts.

5. The Basic Science Bill passed both branches of the legislature and was signed by the governor.

6. Physicians going to the A.M.A. meeting at Washington, May 16-20, should re-

member that in order to get the benefit of the one and one-half fare rate, certificates — not receipts — must be secured when purchasing ticket for Washington.

7. Every malpractice suit is potentially new medical jurisprudence.

8. Seven million women are said to be engaged in gainful occupations in the United States.

9. The membership in the A.M.A., March 1, 1927, was 93,882.

10. Not every pale looking child is anemic.

Nebraska State Medical Journal
May, 1927

President's Page

BECOMING PRESIDENT

Becoming President in the Nebraska Medical Association doesn't just happen. It requires a long period of grooming by people interested in the future of medicine. It is hard to know when this process starts, often the inception is insidious. A spark is kindled, catches on and glows and finally reaches a crescendo — a new president. Not always so, sometimes the glow burns out and fails or maybe it suddenly bursts into flame only to explode and burn out. I am eternally grateful to those who made my crescendo possible.

It behooves everyone in our society to constantly be on the lookout for some future prospect for the presidency. Be alert for the possible young members of our organization who can be tutored in the political aspects of our Medical Society. Too many forces are today working against a doctor "doing his thing" namely, caring for people. We have to fight for what we think is right, not only for our patients but also for ourselves.

The Nebraska Medical Association has spent much time and money grooming me for the job as president. I've enjoyed every minute of it. It has been a great learning experience. I hope I am ready.

One thing I have learned is, it can't be done alone. I need help and support from everyone to find new men to govern our society and am particularly interested in the young doctor and I need all to be loyal to the Nebraska Medical Association and to help me in the many tasks of the Nebraska Medical Association and continued competent staff required.



Remaining unified both on the state and national level is the name of the game to maintain the political "clout" necessary to survive the political arena that could tear us apart.

Sure, like any big family, there is likely to be disappointment and disagreement at times. Let us resolve our differences. Keep our society strong, set a standard of excellence of your individual practices which is impervious to malpractice. Continue to support the Nebraska Medical Association and influence the American Medical Association. I will do all in my power to accomplish this end.

Arnold W. Lempka, M.D.
President,
Nebraska Medical Association



The Auxiliary



FAMILY AND CHILD EMERGENCY SERVICES

Blair is a community near Omaha with a population of approximately 7,000.

FACES is a volunteer organization in Blair involving people in the community who want to help other people and who believe that the community based services can be provided to individuals and families in crisis situations.

FACES as an organization began one year ago as a result of a workshop concerned with child abuse and neglect. The Immanuel Mental Health Center was interested in establishing a satellite clinic in Blair. The coordinator of the Battered and Abused Persons program at Immanuel and a Blair minister, the chairman of Washington County Commission of Mental Health, were instrumental in scheduling the workshop through the State Department of Health. Letters of invitation were sent to potentially interested persons in the Blair community to attend the workshop at Dana College.

From those attending the Child Abuse Workshop a coordinating council of 12 volunteers was formed to assess the needs of the community and explore how the needs could be met. From the first the group felt that the concerns were broader than child abuse and expanded the areas of concern to include child neglect, abusive parents, family problems, divorce, runaways, problem pregnancies, foster homes, alcoholism, suicide, drug abuse, rape and aging.

A survey of lay people, ministers, physicians, nurses, lawyers and representatives of various community organizations disclosed that most people were unaware of services available in Blair. They concluded that there was a need to better coordinate existing

services as well as a need to provide people with a number to call when help was needed. Thus arose the idea of a crisis line and the organization of FACES — Family and Child Emergency Services — to develop a crisis line.

A public education committee prepared a series of newspaper articles to create an awareness of different kinds of crisis situations and how they might be dealt with. Presentations were made to organizations in the community to inform them about FACES and solicit additional volunteers and financial support.

The Crisis Line became operational November 1, 1976. Training sessions were held with personnel from Immanuel Community Mental Health Center to prepare volunteers to work on the crisis line through workshops and a lecture series to provide more in depth information in the various areas of concern. The 28 trained volunteers for the 24 hour service are from a cross section of professions, young and retired persons. One third are nurses. A diverter system installed in the hospital is programmed every 6 hours by a nurse to relay calls to the homes of any one of six volunteers for a given shift.

A training manual was compiled for use by the volunteers including material used in the workshops and lectures in addition to much of the information compiled for a Directory of Services, which includes a listing of civic, social and professional services in Blair and Omaha.

Many of the objectives of FACES have become reality. Additional goals still to be realized are printing the directory, additional fund raising to be entirely self-sufficient, a

reassurance line, and coordination of a volunteer work pool from Dana College and the high school students, churches and civic organizations.

Working actively on FACES throughout its growth has been a relatively small group. Judy Busher from Immanuel Medical Center has been the advisor and professional consultant. Three Blair medical auxiliary members totally involved in the project were Mary Ann Wingert, the first chairman of the coordinating council, crisis line volunteer, and a member of the public education

committee as well as being a full time student; Carole Bagby, who was responsible for the training manual and directory of services; and Billie Sievers with typing and clerical assistance.

In addition to involvement in FACES, Blair medical auxiliary members all participate in Red Cross Bloodmobile, a cancer screening clinic, and the Blair Memorial Community Hospital Auxiliary with a \$10,000 Annual Rummage Sale.

Alleen Bosley



Helen L. Hayes, (Mrs. O. R.)
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 Dr. and Mrs. James V. Reiss
 Dr. and Mrs. Herrad J. Hertzler
 Dr. Miles H. Humphrey
 Mrs. Margaret A. Woodruff
 Hall County Medical Auxiliary
 Dr. and Mrs. Alan H. Domina
 Dr. and Mrs. Richard C. Olney

I Remember

THE ART OF PERCUSSION

One or two years before my time, in the hospital where I interned, we had an attending, who was a self-professed expert in auscultation and percussion of the chest, and he was particularly fond of outlining the borders of the heart. In addition, he was pompous and overbearing, and his stern behavior caught up with him one day.

He should have known better, he should have seen what was coming, because some of the boys asked him with overwhelming politeness if he would please show them how he percussed the cardiac borders. Well, he was happy to do this and to get all that attention, so he went with them from patient to patient, and they carefully, but casually,

put ink marks wherever he said the heart border was, at each interspace.

And when he was gone, they took all these patients down to x-ray, and they connected his dots with a radiopaque metal strip. And the next day came the denouement, when they strolled over to the viewbox with him, and they had the x-ray films lined up, each with the percussed heart border and with the real border, and of course they were far apart.

I wasn't there, but it must have been quite a sight. My conclusion was that if you want to know what is going on in the chest, get an x-ray; and be nice to the interns and residents.

—F.C.

Our Medical Schools

Orthopedic residency at Creighton.

A residency program in orthopedic surgery at Creighton University has been approved by the Liaison Committee on Graduate Medical Education. The Liaison Committee has accredited the program on a provisional basis for four years of graduate medical education in adult orthopedics, children's orthopedics, and fractures. The residency program allows for the appointment of

a total of eight residents, two for each year of training.

Creighton's residency program in orthopedic surgery includes the affiliated hospitals of Creighton University. Richard T. Chiroff, M.D. has served as Chairman of the Orthopedic Surgery program since it was established in 1975.

The first residents in the program will be accepted in July, 1977.

Between Cases

What AIR Is.

It's 5-Aminoimidazole ribonucleotide. That's an acronym, I suppose, but that's what AIR is; look it up.

The Physical.

He is visually blind.

Things That Make Me Shake My Head.

Congress raising its own salary, and did you see by how much? And did you see how they did it?

On Schools.

They are forever closing schools on wintry days when blizzards make it impossible to get there, and school officials are reluctant to close because lost days make rescheduling difficult. I have a solution.

Have vacation in the winter, and go to school in the summer.

It would save heating bills, too.

The Attorneys.

Many lawyers make their living attempting to interpret what other attorneys have written.

Anon.

Witticism Of The Month.

Wife, to husband-in chair-watching TV.
O, you're home.

The Exam.

P.O. tonsillectomy scar left leg.

Heard On TV.

So that minorities can have a majority.

Gems From A Question-And Answer Column.

This is a difficult question.

The Medical Report.

Not unfitting singly or in the aggregate.
Beautiful.

Seen On the Px.

Suprapatellar-wise.

Quote Unquote.

Invalids live the longest.

What It Means.

Circumflex: curved like a bow.

Words I Can Do Without.

As of the moment, prerogative.

Question.

Why do incisions hurt? You're cutting the nerves, and there should be anesthesia.

Laboratory Section.

Patient has anemia, all lab work negative.

—F.C.

WashingtonNotes

Medicare & the sunshine law.

In the name of the "sunshine law," the government released the names of physicians, groups and laboratories that did more than \$100,000 in Medicare business last year. It marked the first breach in the Medicare program's long-standing policy against disclosing such information.

The over-\$100,000 category included 409 physicians, 1,752 medical groups and 58 laboratories. This compared to 2,533 physicians, dentists, and pharmacies listed in the latest Medicaid report of more than \$100,000 intake last November.

The AMA branded the releasing of the names as "only serving to badger a large segment of the profession and to establish guilt by innuendo." AMA Executive Vice President James Sammons, M.D., said that if "HEW thinks any physician on this list is guilty of fraud HEW should say so. We will assist in any case where there is good reason to suspect wrong doing."

Dr. Sammons said the physicians are identified by HEW as individual recipients of Medicare funds, whereas the payments are often for services provided by many others as well. Many of the physicians listed are hospital-based radiologists, pathologists, anesthesiologists, he said. "We would also point out that these services are paid for at a rate set by Medicare and based on prevailing charges two years out of date."

Predictably, press reaction was uneven. Some press took the trouble to check before using the story. Most press did not.

Fraud & abuse.

A bill aimed at rooting out fraud and abuse in federal health programs has started

down the legislative path in Congress. The AMA applauded the objective, but said the bill is so broadly drawn that it allows investigation of "the actions of almost every practicing physician in the United States."

The minority of physicians who abuse Medicare and Medicaid should be brought to justice, the AMA said, but "justice is not served if all practitioners are subjected to harassment and restraint so that a few malefactors may be apprehended."

TV & violence.

The weight of scientific evidence points to a relationship between television violence and increased aggressive behavior in some youthful viewers, the AMA has told Congress.

The AMA called on the TV industry to recognize its social responsibilities, to reduce the amount of violence and to respond with greater sensitivity and diversity in its programming policies. "That television violence represents a serious issue in the mind of the public is a consideration the broadcasting industry can no longer ignore," declared Robert Stubblefield, M.D., consultant on mental health matters to the AMA.

FDA commissioner.

The new Commissioner of the Food and Drug Administration is Donald Kennedy, PhD, a neurophysiologist from Stanford University. Dr. Kennedy is the first non-physician to head the agency in 11 years but he doesn't place much significance in that fact.

Welcome New Members

James R. Adwers, M.D.
409 Doctors Building
Omaha, Nebraska 68131

Anil K. Agarwal, M.D.
808 South 52nd Street
Omaha, Nebraska 68106

Richard F. Bergstrom, M.D.
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Fremont, Nebraska 68025

Jan M. Bogard, M.D.
6401 Rainwood Road
Omaha, Nebraska 68152

N. Leon Books, M.D.
Broken Bow
Nebraska 68822

Frank Dozon, M.D.
Rushville, Nebraska 68360

Richard Engelbart, M.D.
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Scottsbluff, Nebraska 69361

Raynado Garcia, M.D.
Rushville, Nebraska 69360

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8601 West Dodge Road, #216
Omaha, Nebraska 68114

Eelco D. Gerlings, M.D.
302 Doctors Building
Omaha, Nebraska 68131

Robert E. Morris, M.D.
5212 South 83rd Street
Ralston, Nebraska 68127

Donald R. Owen, M.D.
Department of Surgery
University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Glenn C. Rosenquist, M.D.
University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Paul E. Steffes, M.D.
Creighton University School of Medicine
10th & Dorcas
Omaha, Nebraska 68108

M. Ross Thomas, M.D.
8552 Cass Street
Omaha, Nebraska 68114

Long Vu Thien, M.D.
Humboldt, Nebraska 68376

Larry Wiebe, M.D.
1401 East "H" Street
McCook, Nebraska 69001

Willis Wiseman, M.D.
Wayne, Nebraska 68787

REINSTATED MEMBERS APRIL, 1977

Roger A. Cutshall, M.D.
Norfolk Regional Center
Box 1209
Norfolk, Nebraska 68701

David Johnson, M.D.
Osmond, Nebraska 68765

Coming Meetings

May 7 — Ainsworth — Elementary Grade School

May 21 — North Platte, Elks Lodge

June 4 — Grand Island — Nebraska Veterans Home

June 25 — Ogallala — Elks Lodge

INDIANA CHAPTER ACEP-EDNA EMERGENCY MEDICINE SEMINAR will be held at the Airport Hilton Inn, Indianapolis, Indiana on May 11 through May 14, 1977. CME Credits Applied For: 20 hours; Co-sponsor: Indiana University School of Medicine. Fee: \$50.00 - \$100.00. Contact: David Gettle, M.D., 10005 Hillsdale, Carmel, Indiana 46032, 317-844-7105. Note: This seminar is in conjunction with the first day of Time Trials for the Indianapolis 500 Memorial Day Race.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, Fairmont Hotel, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M.

Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 29 & 30, October 1, 1977, Lincoln Hilton Hotel, Lincoln, Nebraska.

45TH ANNUAL POSTGRADUATE ASSEMBLY; Omaha Mid-West Clinical Society; Omaha Hilton Hotel; October 31, November 1 and 2, 1977. Write to Mrs. Janet S. Noll, Executive Secretary, 540 Medical Arts Building, Omaha, Nebraska 68102.

45TH ANNUAL POSTGRADUATE ASSEMBLY, Omaha Mid-West Clinical Society; Omaha Hilton Hotel; October 31, November 1 and 2, 1977. For information contact: Janet S. Noll, Executive Secretary, Omaha Mid-West Clinical Society, 540 Medical Arts Building — 402-345/7146, Omaha, Nebraska 68102.

AMERICAN MEDICAL ASSOCIATION — Interim Session, House of Delegates, December 4-7, 1977, Palmer House, Chicago, Illinois.

AMERICAN MEDICAL ASSOCIATION — Winter Scientific Program, December 10-13, 1977, Miami, Florida.

COLONOSCOPY TRAINING PROGRAM — The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in

New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-

Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

NEBRASKA MEDICAL ASSOCIATION
ANNUAL SESSION — April 30 - May 3,
1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

The Letter Box

To the Editor:

The task of reading all of the pertinent publications which carry articles on the social, political, economic, and scientific aspects of medical care in this country has gotten completely beyond the capacity of any practicing physician. There are several reasons why this is so.

First, the practicing physician in order to continue to sharpen the tools of his profession must read a constantly burgeoning number of publications and attend scientific meetings and continuing education courses.

Second, in order to maintain his appointment to a hospital staff, he must attend staff meetings and serve on its mandatory committees, required by the J.C.A.H. and the federal government, a task which consumes many of his previously relaxing lunch hours and at least four to six evenings per month.

Third, he must maintain his medical society memberships — general and specialty — and these require an average of another two to three evenings per month as well as luncheon committee meetings.

Fourth, he is committed to a variety of charitable organizations and civic groups, the extent of which is difficult to measure, but consuming another sizable amount of the physician's time.

How the doctor can personally read all that he should read in order to keep himself

informed is, in the present milieu, unsolved and unsolvable.

Something must be done because the uninformed is the victim of the schemer, the planner, the politician, the socializer, the liberal economist, and all who would advertently or inadvertently destroy our system of freedom, free choice, and free enterprise.

What is the answer to our problem of the constant erosion of our "free" time and thus the augmentation of ignorance in many matters which are of vital concern to our survival as free citizens and a profession free from third party controls?

My answer is: I don't know.

My question is: Do you?

My purpose is: Give this your best thought and let your medical organizational leaders know what you think should be done. Perhaps a blueprint for solving the problem can be developed.

Did you know that there was a "University Center for Advanced Studies" examining the legal control of science and technology? The implications of this are mind boggling. Never heard of it until I began to compose this letter.

This is just a sample of what our problem is.

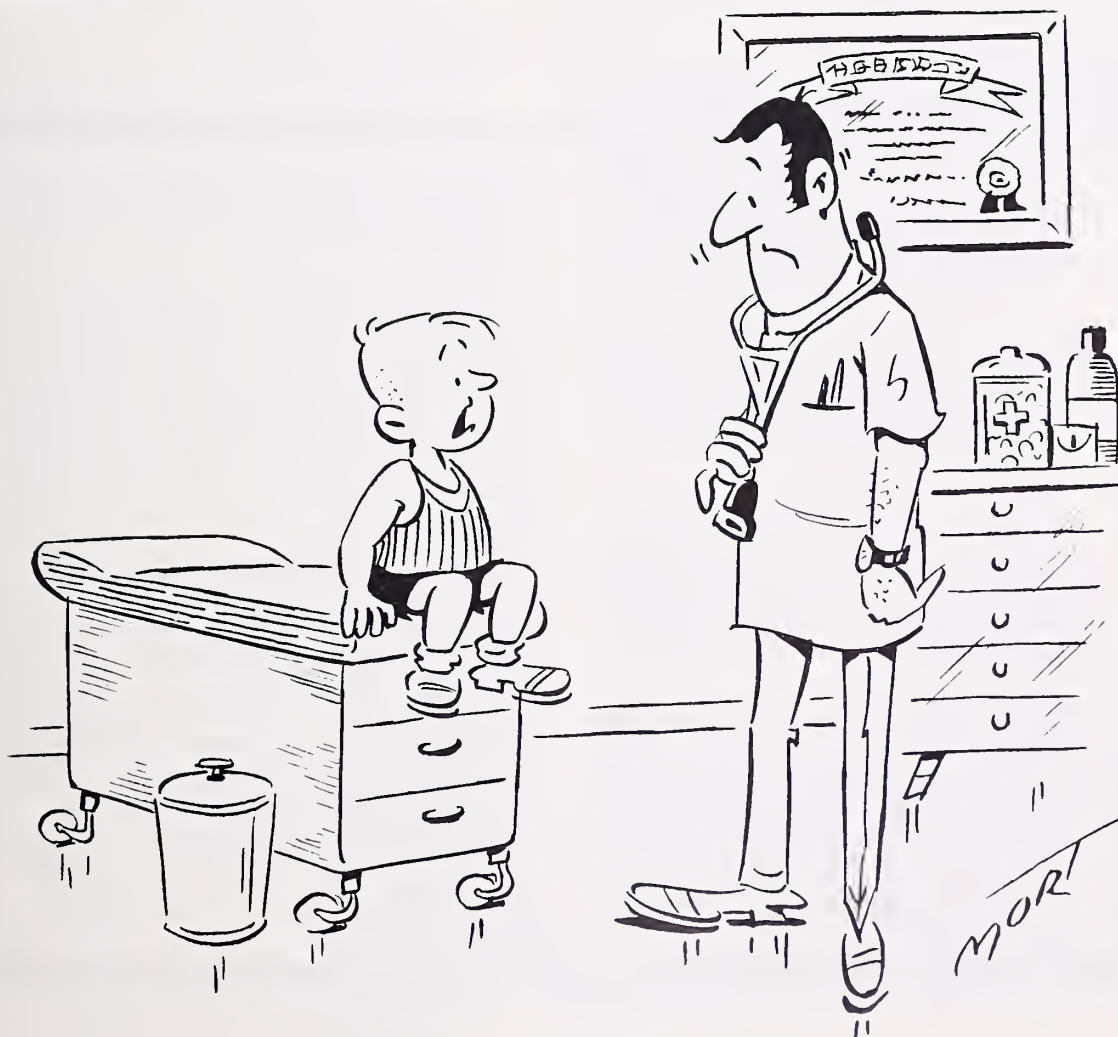
John R. Schenken, M.D.

Results of Reoperation for Failed Aortocoronary Bypass Grafts — C. S. Thomas, Jr, et al (501 St Thomas Medical Bldg, 4230 Harding Rd, Nashville, TN 37205) Arch Surg 111/1210-1213 (Nov) 1976.

Thirty-one patients underwent reoperation for failure of one or more previous aortocoronary bypass grafts. Thirty-nine grafts were replaced. Twenty-four grafts were constructed to vessels not thought to be significantly diseased at initial operation. There were no early or late deaths. Post-operative morbidity was comparable to initial procedures. Of 25 patients followed up for more than six months, 62% clearly experienced improvement without evidence of perioperative or postoperative infarction. Reoperation for failed aortocoronary bypass grafts can be achieved without excess risk.

Combination Teletherapy and Iridium Implantation in Treatment of Locally Advanced Breast Cancer — S. J. Alderman (428 W 59th St., New York, NE 10019) Cancer 38:1936-1938 (Nov) 1976.

Combined teletherapy and interstitial iridium 192 implantation can control locally advanced breast cancer in a consistent fashion without causing significant morbidity. Moreover, in the absence of clinically evident distant metastases, patients who undergo this treatment can survive comfortably for long periods of time. Among 11 patients followed for at least 1½ years, nine are alive without evidence of disease, one is living with distant metastases, and one patient is dead. There has been no local recurrence in the 18 patients included in this report.



"Can smoking corn silk cause lung cancer?"

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RADIOLOGIST: Head Radiology Dept. in 95-bed acute care hospital. Progressive, rural community in western Nebraska, 200 miles from Denver, Colo., skiing, etc. Position open July 1. Contact Administrator, Saint Mary Hospital, Box 591, Scottsbluff, NE. (308) 632-8000.

FULL-TIME EMERGENCY PHYSICIAN POSITIONS available. Group practice in eastern Nebraska. Attractive remuneration with excellent fringe benefits plus malpractice. Write to: Box #58, NEBRASKA MEDICAL JOURNAL, 1902 First National Bank Building, Lincoln, Nebraska 68508.

ONE OF LINCOLN'S finest Medical-Dental office buildings has available one large suite suitable for a group or a laboratory. Will redecorate or remodel to suit tenant. Please contact Dick Gaughan, 489-2718 or Dr. T. L. McKee, 489-5440 or call at Business Office, Suite 1600, 5440 South Street.

EXPERIENCED EMERGENCY PHYSICIAN NEEDED immediately in a modern 208-bed general hospital with complete facilities. Excellent starting salary with four weeks paid vacation and education support benefits for 40-hour week. Pleasant mid-western location with 176,000 population. Contact: Carl I. Maltas, Associate Director, Patient Services, St. Elizabeth Community Health Center, 555 South 70th Street, Lincoln, Nebraska 68510.

RECENT UNMC GRADUATE with Medical Internship looking for Locum Tenens during July-August, 1977. Write to: Box #59, NEBRASKA MEDICAL JOURNAL, 1902 First National Bank Building, Lincoln, Nebraska 68508.

EMERGENCY MEDICINE: physician for major suburban hospital. One of five full-time M.D.'s. New department. Hospital-based specialists in neonatology, pulmonary disease, pathology, cardiology, radiology and anesthesia. Full partnership after two years. Tax-sheltered annuity available and retirement provided. Existing four M.D.'s average age is 34. Joseph R. McCaslin, M.D., Director of Emergency Medicine, Archbishop Bergan Mercy Hospital, Omaha, Nb. 68124 (402)-398-6031.

PSYCHIATRIC RESIDENCY: Vacancies for positions for July 1, 1977, for those who have a regular Iowa license or can obtain one by reciprocity or via the FLEX. Prepare for career in private practice, community clinics or hospital-based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology Affiliation with University of Iowa. The stipends are: 1st year, \$21,294; 2nd year, \$22,360; 3rd year, \$23,478. Intensity and diversity of training program appreciated best by personal visit. T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal Opportunity Employer. Call Collect 712-225-2594.

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days



Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms

Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI

Low incidence of bacterial resistance in community practice

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended for initial episodes of uncomplicated urinary tract infections treated with a single effective antibacterial agent rather than the combination. **Note:** The increasing frequency of resistance in organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in infants 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (J. Clin. Microbiol., 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of susceptible to trimethoprim-sulfamethoxazole indicates an infection likely to respond to Bactrim therapy. If infection is confined to urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombocytopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal/hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, pancytopenia, pancytopenia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitivity, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, colitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

■ Convenient b.i.d. dosage provides day-and-night antibacterial control

■ Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasps. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasps. (5 ml)	½ tablet
40	18	2 teasps. (10 ml)	1 tablet
60	27	3 teasps. (15 ml)	1½ tablets
80	36	4 teasps. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the BactrimTM

3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of

Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of intracolonic colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

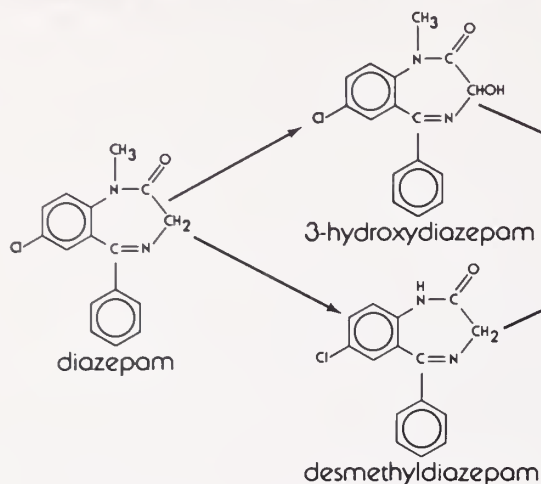
BALCONY

*The Nebraska
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June, 1977

THE

A pharmacokinetic character all its own



Valium (diazepam) is a benzodiazepine with a distinctive pharmacokinetic profile

The pharmacokinetic profile of Valium is one of the characteristics that sets it apart from other benzodiazepines. Consider, in particular, the metabolic pathway of Valium. The three major metabolites of Valium exhibit significant pharmacologic activity—and so, of course, does the parent substance—diazepam itself. All combine to produce the characteristic clinical response seen with Valium. The response you have come to know, to want and to trust.

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2-mg, 5-mg, 10-mg scored tablets
a prudent choice in psychic tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due

to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated:

Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma;

may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients.

Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
3901 So. 27th St., Lincoln 68502

JUNE 1977

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Hypertension After Renal Transplantation —

C. Bachy et al (Clinique Universitaire St-Pierre, Louvain, Belgium), *Br Med J* 2:1287-1288 (Nov 27) 1976.

The incidence of hypertension (mean diastolic pressure above 90 mm Hg) was evaluated in 85 patients with renal transplants whose follow-up ranged from 3 to 84 months. Bilateral nephrectomy had been performed in 80 recipients. The proportion of hypertensive persons rose during the first three months, subsequently stabilized around 50%-60% for up to five years, and then decreased slightly during the next two years. Over the years, hypertension fluctuated so that one third of the initially hypertensive patients became normotensive, and more than one third of the initially normotensive patients became hypertensive. The main single etiologic factor was renal failure. A significant relation between steroid dosage and blood pressure was found in only one fourth of the hypertensive patients, and in another fourth no cause could be found.



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Medicine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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*** Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome, Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes (see Warnings).

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyper-

kalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia,

thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazid. Triamterene is a weak folic acid antagonist. periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use caution in surgical patients. The following may occur: transient elevated BUN or creatinine or both; hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia, gout, digitalis intoxication (in hypokalemia), increasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

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See next page for brief summary

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Warnings. Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

Precautions. Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

Adverse Reactions. Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

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Full information is available on request.

Total Pancreatectomy — A. Sternberg et al (Beilinson Medical Center, Petah Tiqva, Israel), Harefuah 91:377-380 (Dec 1) 1976.

Eight total pancreatectomies performed during 1970 to 1974 are reported. Seven of the patients had adenocarcinoma of the pancreas and one, adenocarcinoma of the distal common bile duct. Operative mortality was high: two out of eight patients died. Except for one major complication, operative morbidity was acceptable and easily manageable. Severe late complications did not result from the operation itself, but from spread of the primary malignancy. Mean survival was more than 20 months for all cases of carcinoma of the pancreas and more than 25 months in patients who died of progression of the primary tumor alone. One patient is still alive more than five years after operation.



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Mode of Action of Aspirin and Similar Compounds — J. R. Vane (The Wellcome Research Laboratories, Langley Court, Beckenham, Kent, England). J. Allergy Clin Immunol 58:691-712 (Dec) 1976.

Aspirin-like drugs inhibit the biosynthesis of prostaglandins in all tissues and species so far studied. The concentrations necessary for this action are achieved after therapeutic dosage. The evidence is reviewed that establishes this biochemical action as the basic mode of therapeutic action of aspirin-like drugs as anti-inflammatory, analgesic, and antipyretic compounds. It may also account for the shared side effects, including the hypersensitivity to aspirin-like drugs shown by some allergic patients.

Oral Cimetidine in Severe Duodenal Ulceration — G. R. Gray et al (Div of surgery, Victoria Infirmary, Glasgow, Scotland), Lancet 1:4-7 (Jan 1) 1977.

Forty adult outpatients with active endoscopically proved duodenal ulceration, who would otherwise have merited elective ulcer surgery, entered a double-blind trial of either cimetidine (1 gm/day) or placebo. After 28 days, 17 of 20 (85%) patients receiving cimetidine showed ulcer healing, compared with 5 of 20 patients receiving placebo (P .0005). Patients receiving cimetidine had significantly more pain-free days and pain-free nights.

Postoperative Pelvic Gas Collections Simulating Pelvic Abscess — H. T. Gilmore (Geisinger Medical Center, Danville, PA 17821) and C. T. Beecham, Obstet Gynecol 49:97-100 (Jan) 1977.

Extraperitoneal gas collections are routinely found in pelvic soft tissues following abdominal hysterectomy. These collections have the typical appearance of extraperitoneal gas but should not be confused with pelvic infection or bowel injury. Similar collections are not routinely found following vaginal hysterectomy.

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in diuretic-responsive
patients.

Lasix. For the
treatment of essential
benign hypertension.

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Lasix® Tablets (furosemide) 20 mg and 40 mg in hypertension.

A brief summary of the Prescribing Information for
Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO₂ and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering either or its deriva-

tives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infant and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD₅₀ of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD₅₀ ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD₅₀ of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 50 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 16 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



HOECHST-ROUSSEL
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AMA Challenges in the Courts

One of the professions's major concerns today is government's mounting pressure for increasing regulation of medicine. In response to these challenges, the AMA has taken a new position of advocacy for physicians and the public which has resulted in the AMA's very first lawsuits against the government.

In March 1975, the AMA took HEW to court over its Utilization Review Regulations which required review of all Medicare and Medicaid hospitalizations within 24 hours. The AMA contended the regulations constituted unlawful interference with the rights of physicians and patients. The AMA won its case and HEW withdrew the regulations.

The AMA also initiated legal action against

HEW's Maximum Allowable Cost Rule, charging that the rule, which would govern the prescription of drugs for Medicare and Medicaid patients, intrudes on clinical decisions made by physicians. The case is now pending.

The AMA has also joined with co-plaintiffs, the state of North Carolina, the state of Nebraska and the North Carolina Medical Society, in a suit against the Health Planning Act of 1974 which gives the Secretary of HEW sweeping powers over nearly every aspect of health care.

These are just some of the many actions the AMA has taken to protect your rights and interests and the rights and interests of your patients. With your support, it can be even more effective.



Join us.
We can do much more together.

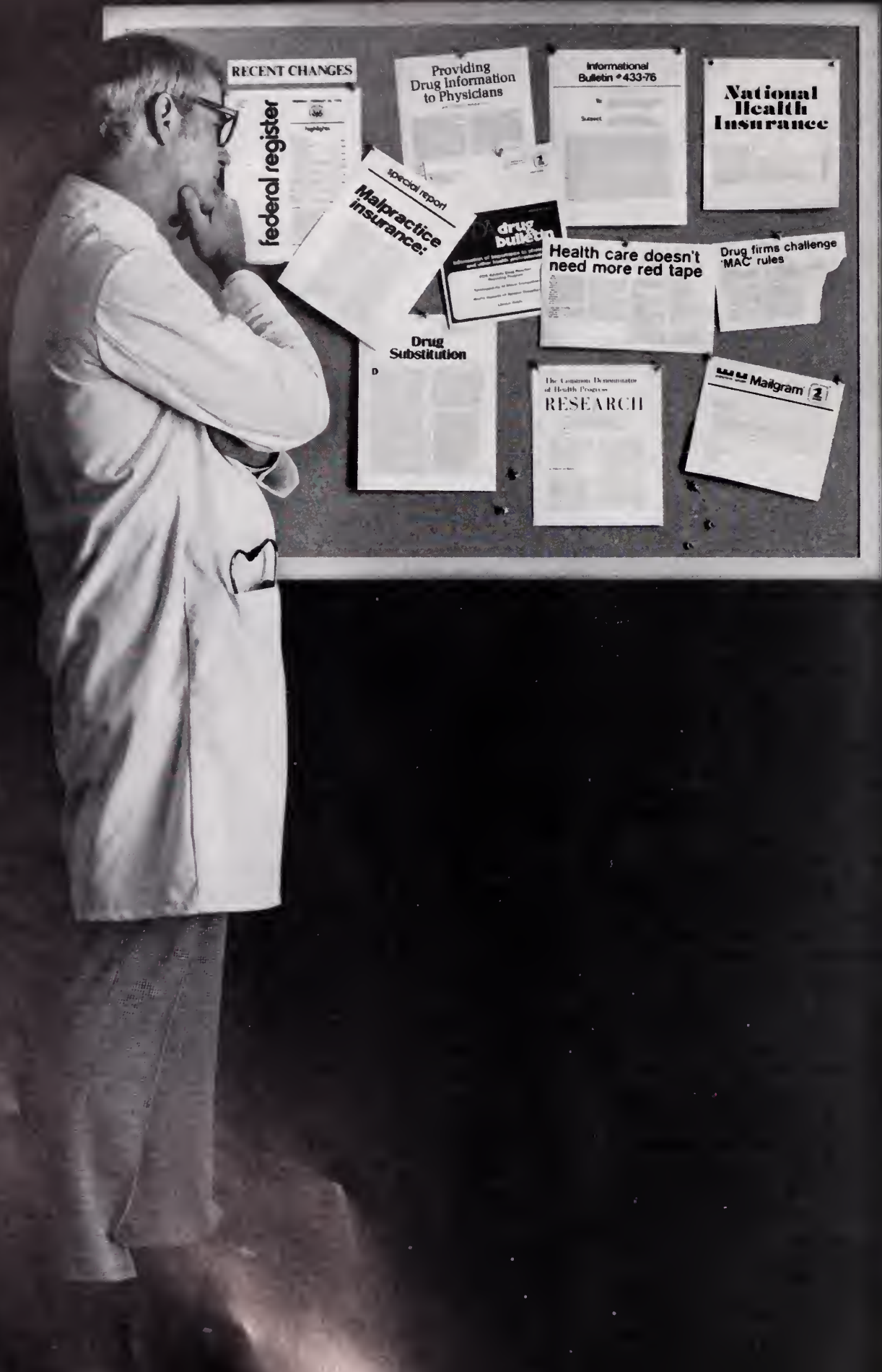
Dept. of Membership Development
American Medical Association
535 N. Dearborn St./Chicago, IL 60610

Please send me more information on the AMA
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RECENT CHANGES

federal register

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**Drug
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**The Common Denominator
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Mailgram 2

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association
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DOCTORS ARE TALKING ABOUT THE PRACTICAL WAY TO LOWER CHOLESTEROL

Choloxin[®] (Sodium Dextrothyroxine)

... for good reasons. Diet alone doesn't always work. CHOLOXIN[®] (sodium dextrothyroxine) has proved itself to be an effective cholesterol lowering adjunct to treatment in euthyroid, non-cardiac patients. It has undergone ten years of clinical trials and eight years of practice. The clinical trials consisted of 37 clinical studies involving over 3,000 hypercholesterolemic non-cardiac patients. It is among the most thoroughly evaluated drugs ever presented to physicians.

Practical, too, is the one-tablet-a-day dosage regimen. It encourages patient cooperation, and is economical for long-term therapy.

CHOLOXIN (sodium dextrothyroxine) lowers cholesterol 15% to 35%, and keeps it down with most patients. (*Data on file, Flint Laboratories*).

Interested in receiving more information about lipid lowering? Write us or contact your Flint representative. We'll be glad to supply you with a complete product portfolio and samples for your evaluation.

NOTE: See following page for full prescribing information.

AN IMPORTANT NOTE:

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.



FLINT LABORATORIES

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Deerfield, Illinois 60015

Choloxin® (Sodium Dextrothyroxine)

Effectively Lowers Elevated Cholesterol With Convenient Once-A-Day Dosage

Four strengths 1, 2, 4, and 6 mg are available making the scored tablet regimen a flexible dosage system. And, for most patients, CHOLOXIN tablets offer once-a-day dosage

CHOLOXIN® (sodium dextrothyroxine) Single-Tablet-A-Day Dosage Schedules

See prescribing information in package insert reproduced below.

	Starting Dosage	Increased Monthly by	Usual Maintenance	Maximal Recommendation
Adult Hypercholesterolemic	1.0-2.0 mg.	1.0-2.0 mg.	4.0-8.0 mg.	4.0-8.0 mg.
Pediatric Hypercholesterolemic	0.05 mg./kg. body weight	0.05 mg./kg.	0.1 mg./kg. body weight	4.0 mg.
Hypothyroid Cardiac	1.0 mg.	1.0 mg.	4.0 mg.	4.0 mg.

Choloxin® (Sodium Dextrothyroxine)

Description

CHOLOXIN (sodium dextrothyroxine) is the sodium salt of the dextrorotatory isomer of thyroxine. It is chemically described as D-3,5,3',5'-tetraiodothyronine sodium salt.

Actions

The predominant effect of CHOLOXIN (sodium dextrothyroxine) is the reduction of serum cholesterol levels in hyperlipidemic patients. Beta lipoprotein and triglyceride fractions may also be reduced from previously elevated levels.

Most of the available evidence indicates that CHOLOXIN (sodium dextrothyroxine) stimulates the liver to increase catabolism and excretion of cholesterol and its degradation products via the biliary route into the feces. Cholesterol synthesis is not inhibited and abnormal metabolic end-products do not accumulate in the blood.

Indications

This is not an innocuous drug. Strict attention should be paid to the indications and contraindications.

CHOLOXIN (sodium dextrothyroxine) is an antilipemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease.

The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication.

Before prescribing, note the following: Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation. There may be an additive effect. This additive effect may possibly stimulate the myocardium excessively, in patients with significant myocardial impairment. CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly. Careful monitoring of the total effect of both drugs is important.

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Contraindications

The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated:

1. Known organic heart disease, including angina pectoris; history of myocardial infarction; cardiac arrhythmia or tachycardia, either active or in patients with demonstrated propensity for arrhythmias; rheumatic heart disease; history of congestive heart failure; and decompensated or borderline compensated cardiac status.
2. Hypertensive states (other than mild, labile systolic hypertension).
3. Advanced liver or kidney disease.
4. Pregnancy.

5. Nursing mothers.
6. History of iodism.

Warnings

CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time. Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment.

In the surgical patient, it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated.

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease, treatment should be initiated with care. Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required. This drug may increase the oxygen requirements of the myocardium, especially at high dosage levels. Treated subjects with coronary artery disease must be seen at frequent intervals. If aggravation of angina or increased myocardial ischemia, cardiac failure, or clinically significant arrhythmia develops during the treatment of hypothyroid patients, the dosage should be reduced or the drug discontinued.

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine). As with all thyroidactive drugs, hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients.

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency. This condition may be enhanced in patients receiving thyroid analogues. These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease.

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones, it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation. During emergency surgery in euthyroid patients, and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy, the patients should be carefully observed.

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents. Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs. If sodium dextrothyroxine is later withdrawn from

patients who had required an increase of insulin (or oral hypoglycemic agents) dosage during its administration, the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state.

When either or both impaired liver or kidney function are present, the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results.

Usage in Women of Childbearing Age

Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug; it can be given to those patients exercising strict birth control procedures. Since pregnancy may occur despite the use of birth control procedures, administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother. Teratogenic studies in two animal species have resulted in no abnormalities in the offspring.

Precautions

It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein-bound-iodine levels. These increased serum PBI values are evidence of absorption and transport of the drug, and should NOT be interpreted as evidence of hypermetabolism; similarly, they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine). PBI values in the range of 10 to 25 mcg% in treated patients are common.

If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy, the drug should be discontinued.

A few children with familial hypercholesterolemia have been treated with CHOLOXIN for periods of one year or longer with no adverse effects on growth. However, it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol-lowering effect is observed.

Adverse Reactions

The side effects attributed to dextrothyroxine therapy are, for the most part, due to increased metabolism, and may be minimized by following the recommended dosage schedule. Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease; the incidence of adverse effects is increased in hypothyroid patients, and is highest in those patients with organic heart disease superimposed on the hypothyroid state.

In the absence of known organic heart disease, some cardiac changes may be precipitated during sodium dextrothyroxine therapy. In addition to angina pectoris, arrhythmia consisting of extrasystoles, ectopic beats, or supraventricular tachycardia, ECG evidence of ischemic myocardial changes and increase in heart size have been observed. Myocardial infarctions, both fatal and non-fatal, have occurred, but these are not unexpected in untreated patients in the age groups studied. It is not known whether any of these infarcts were drug related.

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia, nervousness, palpitations, tremors, loss of weight, lid lag, sweating, flushing, hyperthermia, hair loss, diuresis, and menstrual irregularities. Gas-

trointestinal complaints during therapy have included dyspepsia, nausea and vomiting, constipation, diarrhea, and decrease in appetite.

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease), hoarseness, tinnitus, dizziness, peripheral edema, malaise, tiredness, visual disturbances, psychic changes, paresthesia, muscle pain, and various bizarre subjective complaints. Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine by some investigators. Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient, although its relationship to CHOLOXIN therapy was not established.

In several instances, the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine); a worsening of peripheral vascular disease, sensorium, exophthalmos, and retinopathy have been reported.

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants, such as warfarin or Dicumarol, on prothrombin time, thus indicating a decrease in the dosage requirements of the anticoagulants. On the other hand, dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section).

Dosage and Administration

For adult euthyroid hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day. The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, if that dosage level is indicated to effect the desired lowering of serum cholesterol.

When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication, the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, preferably the lower dosage. The maximum in patients receiving digitalis therapy is 4 mg.

For pediatric hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0.1 mg (100 mcg) per kilogram. The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals. The recommended maximal dose is 4 mg daily, if that dosage is indicated to effect the desired lowering of serum cholesterol.

If new signs or symptoms of cardiac disease develop during the treatment period, the drug should be withdrawn.

How Supplied

CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1, 2, 4, and 6 mg tablets.



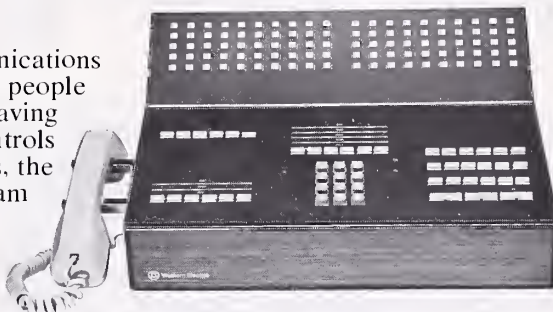
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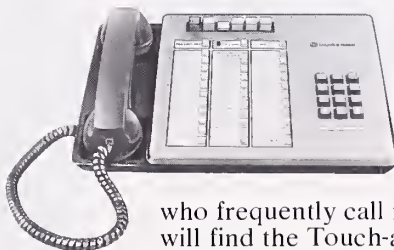


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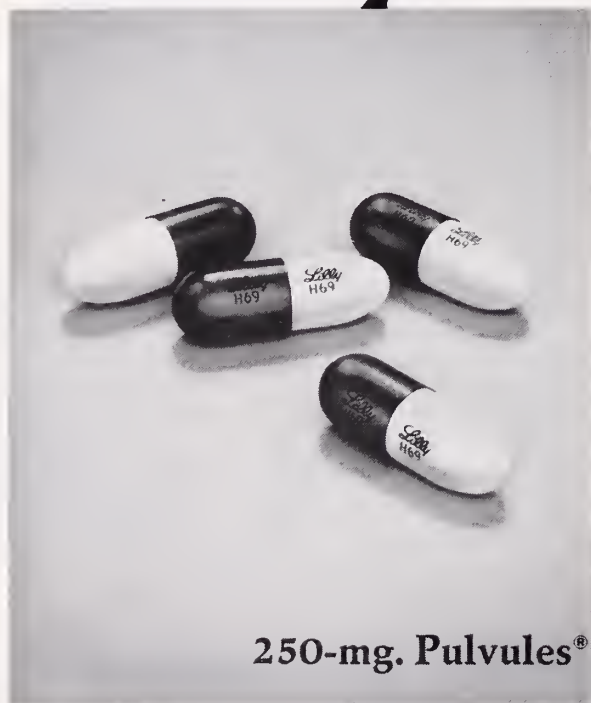
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THE NEBRASKA MEDICAL JOURNAL

THE SECOND OPINION

As a not-overly-modest playwright wrote, those of us who are surgeons prescribe and fill our own prescriptions; we recommend surgery and then we do the surgery, and we are paid for operating. It has been said that this is not desirable, that we will be inclined to suggest the operation we will ourselves perform.

If there will be second opinions, let us remember that the patient will pay for second as well as first opinions, since, like malpractice premiums and awards, all the money comes from the patient. It brings me back to games played at the grocery check-out counter. The prizes are not given away for nothing, they are not free, as one deluded cashier-register girl thought. All the money in the store comes from the shopper. And when the manufacturer fixes his name on my new automobile, I pay for it; and when the dealer then adds his name and rivets it on to my new car, I pay for that, too.

But when I go to the automobile-shop, they diagnose, and then they treat. Is this not the same as what has disturbed our critics? Will the mechanic not be inclined to find something to repair, since he will do the repairing? I once was referred to an automobile diagnostic center where they would diagnose but not treat, but they were no better. They charged me for diagnosing and then they said, O yes, they repaired, too.

Second opinions are good, and when the first says operate and the second says no, will we have a third, to cast the deciding vote? If the first says don't operate, will the patient want a second? I envision a nine-judge panel, a supreme court, or at least a court of appeals, where the judges are all doctors, or computers.

It seems to me, the patient always had the right to ask another doctor for his opinion, before submitting to surgery. I have had surgery twice, but I trusted my surgeons, and I am glad.

—F.C.

ANNUAL SESSION, 1977

It was an exceptionally good meeting. Dr. Stryker's scientific program was particularly good. Jesse Owens charmed us, signed two programs for my boys, and spoke well. Fun night was enlivened by the boat trip and by an editor-turned-pianist's contribution, helped along by a friendly drummer.

We chose a new president, whose father had been president 26 years before. We had our first Frank Tanner memorial lecture, and we listened twice to AMA president Dr. Palmer. The councilors and the delegates labored, and our staff worked hard and into the night. The reference committee meetings were good and were sparked by lively discussions.

The talk on Laetrile was beautiful. The fifty-years-in-practice awards were given, and we applauded; we will all be there one day, and it's a fine tradition. Driving forth and back was tiring, but it was worth it; the food was good and abundant; drank lots of coffee, too. The attendance was good. Wait till next year.

—F.C.

TAKE THE HANDLE OFF

John Snow was the first full-time anesthesiologist and probably the best one who ever lived. And he became famous before his anesthesia career when he solved the London typhoid epidemic problem by saying, take the handle off the Broad Street pump.

There are two handles in men's rooms, at the urinal and at the sink. The first is used infrequently if it is truly a handle, but more often if it is a step-on device, for obvious reasons. And the foot-operated lever is easily installed and should replace the handle.

The other is at the sink, and the need for a step-on control is even more obvious here. For when one turns on the water at the bowl, with hands that, now harboring B. coli, have become considerably less than sterile, the handle must become a ready source of contamination. I have not taken cultures of

faucet handles, are they not obviously contaminated?

Before you reply, look at the scrub sinks outside the operating room. You can turn them on and off without touching them.

When you have fixed the men's rooms, do it for the ladies, too.

—F.C.

ON WORKING NIGHTS

A doctor is someone who gets up at six o'clock, works hard all day, comes home for dinner, goes back to the hospital for evening rounds, comes home again, and then gets up at midnight for emergencies. Some of this, the emergency, I mean, is unavoidable, but probably not all of it. We are tired when we are awakened at midnight, and we are sleepy. And it is not reasonable to expect, and I am thinking of malpractice, that we will be completely alert in the middle of the night.

There are three solutions to this problem.

One. Have one surgeon and his assistants

and all the nurses work days, and another operate at night; and the anesthesiologist, too. This means twice as many doctors and nurses, and the cost to the patient would be doubled. But do the patients realize that the same doctor now works night and day?

Two. Excepting for infrequent episodes that will not wait, as bleeding, it seems that many emergencies can be done the next morning. And it often happens that a case could have been done the previous afternoon, but the surgeon could not make up his mind until midnight.

And three. When you are the judge or jury in a malpractice case, remember that the doctor worked hard all day, and then had to get up in the middle of the night to treat the patient. People who were awakened at night have said very strange things. And it is not fair to require the doctor to be as alert at three o'clock in the morning as he is at three in the afternoon, nor should he be held to as rigid an accounting in the middle of the night as he is at noon.

At noon or at midnight, the test should be, did you do the best you could?

—F.C.

Death: An Operational Definition

IN spite of the fact that there is a voluminous amount of material in the literature about how to die, how to care for the dying, what happens after death and, particularly in the last twelve years,¹ methods for determining the presence of death, there has been little attempt to define precisely what this phenomenon is.

There have been, of course, extensive concerns in religious writing about death and the theological convictions that the soul and death are intimately intertwined. However, the sequence of events is often considered to be that death occurs first and *then* the soul leaves the body. As for example, Frazer² in the *Golden Bough* notes that among the primitive Malays, the soul ". . . is temporarily absent from the body in sleep, trance, and disease . . . (but is) . . . permanently absent after death." Indeed, if death were *due* to the soul leaving the body permanently, this would be a metaphysical definition of death; this, however, is not what is usually considered the course of events.

Death has often been defined as the absence of life. Based on this a new word for death could be coined, *enantiobios*, the opposite of life. Such a circular definition would be permissible provided a concrete definition is given for life. However, it is quite inadequate to define death as the absence of life and then to define life only in such abstract terms as, to be, or, to exist. Yet, this is how Webster³ and Dorland⁴ define death and, probably more important, because of its medical-legal implications, how death is, at least in part, defined in Black's Law Dictionary⁵ ". . . the cessation of life; the ceasing to exist."

One of the most striking things about the large number of papers in the medical literature concerned with death is the frequent confusion between what is death and what are the criteria or methods for measuring the presence of this particular phenomenon. Only rarely has notice been taken of this confusion. In 1972 the Report of the Task Force on Death of the Institute of

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Society, Ethics and Life Sciences⁶ stated that it is important to avoid ". . . the notion that the new criteria constitute a new or an alternative definition of death, rather than a refined and alternative means of detecting the same 'old' phenomenon of death." Indeed, the subtitle of the well known report of the Ad Hoc Committee of the Harvard Medical School⁷ is a ". . . Definition of Brain Death." Actually, in their paper there is no definition of death but rather what is offered is a list of criteria and methods for determining whether this condition exists.

Biorck⁸ has warned that, ". . . the subject of life and death . . . carry heavy philosophical, religious, and emotional charges, and whoever attempts to deal with them will beat his forehead bloody against the same wall that has for thousands of years, refused to give way to the attacks of metaphysics." There is, however, a practical need at the present time for a concrete definition of death or, if you will, of life.

Recent technological advances in what can be grouped under the rubric of "life support systems" and, to a lesser, albeit, more dramatic degree of importance, organ transplantation, are forcing the physician, as well as the state, to develop a concrete definition of death. The physician is not infrequently faced with the extremely serious decision of what to do at a specific moment in regard to carrying out an irrevocable act i.e. "pulling the plug." At this particular moment all discussions and ruminations about the "higher" meaning of life have to be replaced by action. It is for this reason, that it is necessary for the physician to have available for immediate use an *operational* definition of life, or its antonym, death.

In 1961 Negovsky⁹ defined ". . . death of a living organism (as) the disintegration of

its unity, interruption of interrelations of the organs and systems both with each other and the external environment." Two more recent definitions are: "Life is a dynamic state of organization which continues for long periods of time without human intervention, and . . . death is the disorganization of such a state of organization"¹⁰ and "biologically . . . (death is) the absence of potential life . . . more specifically, this means the lack of ability to synthesize new molecules in an integrated system . . . only when an irreversible rearrangement of structured molecules has taken place i.e. one that forever prevents a duplication, may it be said that death has occurred."¹¹

In addition to the general vagueness of these definitions there is something lacking which is very important. What the physician is mainly concerned with when he faces a problem of whether or not to discontinue life support systems is not the death of a cell or any nonspecific biological system of cells but rather the death of a thing we call a person. This was recognized at least as early as 1912 by Roswell Park¹² in his excellent paper on thanatology. He wrote that "The life of a cell is then necessarily quite distinct from the life of its host, nor can the latter be composed simply of the total numerical lives of its components." This same point was made in 1968 in what has been referred to as the Declaration of Sidney¹³ which said that ". . . clinical interest lies not in the state of preservation of isolated cells but in the fate of the person."

In light of all this, I would like to offer an *operational* definition of death: *Life is a biochemical, organized, functioning system and death is the irreversible destruction of this system.* The terms used are not just vague abstractions that beg the real question. As for example, in the hepatocyte it is possible to describe: 1.) some specific *biochemical* reactions, 2.) an *organization*, the known details of which can relate certain substructural units to certain of these biochemical reactions, and 3.) what the specific *functions* these biochemical reactions have. That everything is known about this particular system and that everything that is thought known is correct, is obviously not so but this in no way negates the fact that it is

possible, within certain limits, to objectively define with considerable specificity this particular living system. The hepatocyte system is part of other definable, living systems which in turn are parts of still other systems and the entire system of systems that is of particular interest here is what is identified as a person. Since it is recognized that there is a hematological system, a gastrointestinal system, etc., it seems reasonable to refer to the totality of all these systems as the *person-system*.

It is quite evident that the person-system can be identified and can function even in the absence of certain of its subsystems. The loss of an arm, a kidney or even one cerebral hemisphere reduces the capacity of the entire system, but the total system can still function adequately enough so that it can be identified as a specific entity, the person-system.

However, there is a limit to the amount of subtraction that can occur before the biochemical, organized, functional system called a person is no longer the same functional system. The drift of much recent thought on this problem — the definition of life and death — is that the limiting subsystem within the whole is the brain and, hence, when the brain is no longer a biochemical, organized, functioning system, the person-system is no longer alive.

But why the brain?

A number of years ago I read in a paper that I can no longer find the reference to, that a research worker doing some experiments on removing large portions of rabbits' brain commented that at times it was hard to distinguish his experimental animals from rabbits with intact brains; one was as "stupid" as the other. The real difference between man and rabbits or dogs or rats or even to a very large extent his next relative in the evolutionary scale, primates, is that not only is a person without a brain more "stupid" than a person with a brain, he is actually no longer a person.

For the most part, investigative studies using a dog's heart or a rat's liver are very applicable to understanding human heart or liver functions but the only real model of

man's brain function is man. If it was not for some immunological problems that may some day be solved, a dog's kidney or a monkey's heart could be transplanted into a human without in any way altering the humanness of a particular person. But as far as a brain transplant is concerned, this cannot be done and still have a human being. In other words, the one organ which distinguishes man from any other animal is his brain.

I, as a neurologist, have occasionally suggested to my colleagues in other specialties that the rest of the body is only a slave to the brain. The cardiologist promptly points out that life does not last long after his organ stops functioning. But this just emphasizes the importance of the functioning brain. It is not the fact that the heart per se stops functioning that causes the death of the person-system but rather it is that the heart becomes remiss in its function of supplying necessary ingredients for the functioning of the brain. This can be easily shown by the fact that death of the person-system need not occur even if the heart is anatomically removed from the body provided some other system — and in this case a *nonliving* system, a pump — is substituted to keep the brain supplied with adequate amounts of blood.

A model that illustrates what happens when the brain is removed may be execution by the guillotine. Since at least the nineteenth century, French physicians have noted that although it must be assumed that the person whose head is so purposely and quickly removed from all connections with an otherwise uninjured body is dead within at least seconds, the rest of the body may give good evidence of remaining alive for up to an hour e.g. continued heart beat, contraction of muscles when touched and persistence of intestinal peristalsis.¹⁴

The crucial test of the brain being the limiting subsystem for the person-system has not yet been done, that is, removing a living brain from the body of one person and using it to replace the brain in another person. Even assuming that the technical problems could be overcome, the implications involved in such a transplant raises all sorts of moral and social questions which cast serious doubt

about whether this will ever be done, at least in our society. But, on a hypothetical basis, such an operation would really represent transplanting of a donor body onto a recipient's brain rather than transplanting a donor brain into a recipient's body! In other words, if my brain were transplanted into another person's body, I feel certain that upon awakening from surgery, *I* would look at my body and see a new set of limbs and in the mirror *I* would see a new face. The transplanted part would not be my brain but rather someone else's body.

Although usually a person is identified by his physical attributes, this is done because it is easier to do so objectively than to identify him by his mental qualities which in turn are manifestations of his brain function. However, a person is a specific entity and someone different from all others (let alone other animals), mainly because of his cognitive activities plus all those things which go to make up his personality; these factors are basically manifestations of brain function. This obviously is very Cartesian — "I think, therefore I am."

Hence, it seems logical to conclude that the limiting subsystem in the person-system is the brain or at least the cerebrum-diencephalon. When the brain no longer fits the definition of being alive, in other words when it is no longer a biochemical, organized, functioning system and regardless of whether or not other subsystems are still alive, the person-system can be defined as being dead.

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Useful Blood Tests in the Diagnosis and Management of Cancer: A Review

PART III

ANTIGENS AND ANTIBODIES

Antigens and antibodies are being used as semantic terms for convenience rather than representing functional capacity. In general, the purpose of this section is to discuss tumor-associated antigens with the hope that they may be effective tumor markers which would help in the diagnosis and management of patients with cancer. In practice, the best of them, the alpha fetoprotein and carcinoembryonic antigen are still non-specific.

Alpha fetoprotein, AFP, is a glycoprotein alpha one globulin with molecular weight of 70,000. It is normally present in fetal serum from 12-14 weeks, increasing until term and disappearing five weeks after birth. It used to be thought that elevated AFP was found only in patients with hepatoma and teratoblastoma. Now, however, it has been found in many conditions because of development of newer, more sensitive techniques. Utilizing double gel diffusion, AFP was discovered in one third of patients with teratoblastoma, so that its detection was considered pathognomonic for those conditions in adults. The counter-electrophoresis technique recovered AFP in one-half of hepatoma patients and in 50% of other conditions. The new sensitive radioimmunoassay has detected AFP in 85-95% of patients with hepatomas, but also in many patients with non-malignant conditions, including cirrhosis, benign liver disease, ataxia telangiectasia and in aminocentesis fluid from neural tube defects. High titers of AFP have been found

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in patients with hepatoma using this method. As a result, the need for quantitative alpha fetoprotein levels has been emphasized to assess the prognosis of patients with hepatoblastoma and teratoblastoma after therapy.⁶⁹ Determination of both quantitative AFP and carcinoembryonic antigen in patients with metastatic liver disease and pancreas and stomach has shown promise of earlier detection.⁷² Elevated AFP has also been reported in cholangiocellular carcinoma.⁷⁰ There is suggestive evidence that AFP can be used as an objective parameter of therapy, disappearing with effective treatment, reappearing with recurrence. Periodic quantitative tests in AFP are advisable for patients with post hepatic cirrhosis and in others who may be expected to have an increased incidence of hepatoma. Currently, the usefulness of alpha fetoprotein as a parameter is limited because of its availability only from experimental laboratories.

Hepatitis associated antigen, HAA, has been found in some hepatomas, in certain

ethnic and geographical situations and is considered to be etiologic in those hepatomas.^{27, 73, 74} Further differentiation of the antigen according to newer techniques and its incidence in malignant disease is an area of current investigation.

Other antigens are numerous but not clinically useful, although the oncofetal antigen of human pancreas shows early promise.¹⁰¹

Likewise, antibody determinations for a variety of malignancies are still investigative and generally not available. Antibody to Epstein-Barr virus is found in Burkitt's lymphoma and in nasopharyngeal carcinoma. This can be obtained through special request. Antibody to ocular melanoma also appears promising.¹⁰⁵ A close correlation has been suggested between antisarcoma antibody titers and progression of sarcoma, with decreasing titers with advancing disease and increasing titers in those who remain disease free.¹⁰²

Polyamines are amino acid breakdown products found in high concentrations in neoplasms and as such represent more general markers of tumor cytokinetic behaviour. Putrescine, spermadine and spermine result from the decarboxylation of ornithine and can be measured in the urine and serum. Preliminary data hopefully suggests that spermadine can serve as a marker of tumor cell kill while putrescine reflects tumor growth, and that both can be of predictive value in monitoring cancer therapy.¹⁰⁶

CEA

The newest and most useful blood test appears to be *CEA*, carcinoembryonic antigen. CEA is a tumor associated antigen found by antibodies to the antigen from colon metastases in the liver. CEA is a glycoprotein with a molecular weight of 150,000 to 200,000 which migrates as a globulin. Although once considered to be a homogeneous substance, it now appears that CEA is heterogeneous and the newest isomer CEA-S⁹⁴ appears to be even more specific in bowel cancers. The methodology in measuring CEA varies and deserves careful consideration in extrapolating to every day use. If the CEA is processed by the Hoffman-

LaRoche method, it is the Hansen zirconyl gel determination of plasma CEA by radioimmunoassay; the other major method is the Gold-Thompson process on serum. Of importance here is that values in CEA on the latter are consistently higher.

Although the literature is replete with reports on CEA, the major impetus in making it available has been from the Hoffman-LaRoche collaborative study of 11,000 patients with 35,000 assays in one hundred participating centers.^{79, 80} Sufficient summarization can be found in the FDA bulletin⁷⁶ and a recent editorial.⁷⁷

Carcinoembryonic antigen is found in the glycocalyx, that slimy mucoprotein subserving a protective and lubricative function from mouth to anus.

CEA enters the blood stream after disruption of the basement membrane by inflammation or tumor. It is also found in fetal gastrointestinal tissues through the first six months. Originally, in 1963, it was hoped that the CEA would be specific for carcinoma of the colon, but was quickly found to be elevated in all entodermally derived carcinomas. Since then, CEA has been found in nonentodermal and noncarcinoma malignancies and other conditions.

Practical application of CEA levels is under current debate.⁹² Quantitation of circulating CEA in nanograms per milliliter has proved difficult to interpret. For the ROCHE-CEA 0-2.5 ng/ml is normal, but does not exclude cancer; 2.5-5.0 gray zone; 5.1-10.0, suggestive of cancer; 10.0-20.0 rarely due to nonmalignant disease; and greater than 20 ng/ml suggests metastatic tumor. Unfortunately, many nonmalignant conditions elevate CEA levels.⁸¹ There is an age associated increase in normal levels, especially in patients over sixty years old. Finally a day to day variation of 35% in the CEA level has been noted.⁹⁶

Fortunately, objective evaluation of the use of CEA in the diagnosis and management of patients with cancer is somewhat available from the recommendations of the International Workshop on CEA, held in London, November 1973 and published January 1974.⁷⁵ 1) None of the present assays are

ideal for clinical purposes (although CEA-S may offer improved detection of gastrointestinal neoplasia.)⁹⁴ 2) CEA does not differentiate one primary site from another but does increase with increasing disease. 3) In the differentiation of benign and malignant disease, CEA is seldom higher than 10 ng/ml in benign diseases using the Gold or Hansen z-gel methods. Sustained or rising serial values are more likely malignant. Intermittent release of CEA is possible. 4) CEA is unsuitable for screening. (There is some recent evidence that it may be suitable for screening carcinoma of the pancreas.)⁸¹ Higher levels of CEA are seen in bowel, genitourinary, pulmonary, breast, neuroblastoma and pancreas tumors. 5) In prognosis, high preoperative CEA's are associated with more rapid recurrence of tumors of the colon and lung (poor correlation with lung cancer has been noted).⁸⁵ No good data on early lesions exists (see further comments). 6) In the diagnosis and management of residual and recurrent tumors, there is a widespread agreement that detection of residual and/or recurrent disease is one of the most important areas where CEA has a present role. Successful surgical removal of tumors is followed by a decline to normal CEA levels in a matter of 2-4 weeks. Most experience exists with colorectal, mammary, neuroblastoma and renal carcinomas. It appears that in some but not all, rises in plasma CEA may precede the clinical detection of recurrence by 10 weeks to 13 months (range 0-29 months).⁸¹ In addition, the site, rather than the size, has a profound effect on CEA values. 7) As a monitor of therapy preliminary results using serial CEA's to monitor chemotherapy and radiotherapy are encouraging.

More recently, the use of CEA in the therapy of gastrointestinal diseases has been reviewed.⁸¹ In postoperative states a normal CEA does not exclude the presence of residual tumor. More importantly, it is suggested that perhaps rising serial CEA's can suggest a second-look operation for colorectal carcinoma before clinical signs become apparent.⁸¹ In another series^{93, 100} preoperative serum CEA levels less than 2.5 ng/ml indicated a 10-20% recurrence within 18 months; above 2.5 ng/ml, 50-60% recurrence. Where CEA levels exceeded 5.0 ng/ml

preoperatively, adjuvant therapy was believed to have been justified. A rising CEA level elevated about 3.5 ng/ml in two or more determinations made 10 days apart, justified "serious consideration of further therapy."^{93, 100}

In recognition of carcinoma of the pancreas, CEA assays are more frequently positive than other tests, including the upper gastrointestinal series, hypoduodenography, celiac arteriography, percutaneous transcholangiography; in addition positive CEA's are sometimes obtained with negative pancreas biopsies in patients later proven to have carcinoma of the pancreas. CEA elevations suggested liver metastases twice as often as liver scan.⁸¹ In patients who had cancer of the pancreas that proved to be operable, the mean value of the serum CEA was 3.7 ng/ml; whereas in patients with inoperable disease the mean value was 17.9 ng/ml.⁹³

Newer data concerning CEA in early colorectal carcinoma is materializing.^{84, 86, 87, 91} In a Swiss study,⁹¹ 89/90 controls had CEAs by Gold's method of less than 5.0 ng/ml; 63% of Duke's A and B colorectal carcinomas had CEAs greater than 5.0 ng/ml which, when associated with no drop in CEA after one month, suggested a bad prognosis.⁹¹ It is generally accepted that one-third to one-half of patients with early colorectal cancer will have normal CEA values.

Evidence continues to mount that CEA levels correlate with chemotherapy, radiotherapy and perhaps hormonal therapy of various tumors.^{82, 83, 95, 96}

The use of CEA in determining the criteria of inoperability of carcinoma of the lung has not proven useful.^{85, 93}

The highest CEA levels recorded are found in pseudomyxoma peritonei.

Usefulness in high risk patients has not been determined. Hoffman-LaRoche have ongoing ulcerative colitis and uranium mining studies in the hope of answering this question.

Combining CEA with other biological markers including HCG and serum and urinary polyamines to detect metastatic disease is already proving useful in patients with metastatic breast carcinoma.⁹⁹

Future uses of CEA include testing other body cavity fluids and pancreatic secretions. Urine CEA's have shown promise in renal cell carcinoma and other genitourinary tumors. Another possibility is fluorescent antibody to CEA for work in cytology and nuclear medicine.

All in all, the summary statement on the Internal Workshop on CEA still holds:

"The most valuable role for plasma CEA studies lie at present in the areas of prognostic management, detection of recurrent and/or residual disease and the monitoring of therapy. Such investigations should be prosecuted actively with particular respect to bowel, lung, breast, kidney, pancreas and neuroblastoma malignancies."⁷⁵

Practically, the problem of interpretation of an isolated elevated CEA is controversial. Therefore, baseline and serial measurements provide the best basis for use of CEA in the diagnosis and management of patients with cancer.

SUMMARY

A wide variety of useful blood tests for the diagnosis and management of patients with cancer is available. While blood screening tests for cancer in general have been unsuccessful, some tests have proved to be valuable in following the course of malignant disease as parameters of paraneoplastic disease activity or as tumor markers of the neoplasm itself.

The most useful of these are the following: serum copper in Hodgkin's disease; acid phosphatase in prostatic carcinomas; radioimmunoassay for parathormone in parathyroid carcinomas and in the differential diagnosis of hypercalcemia; bioassay for erythropoietin in renal and vascular tumors; alpha fetoprotein in hepatoma; and carcinoembryonic antigen (CEA and isomer, CEA-S) in colorectal and pancreas carcinomas.

Still, the majority of blood tests useful in cancer patients fall short of detecting tumor before spread of disease. Investigation continues for new parameters in the diagnosis and management of patients with cancer. Perhaps the polyamines will become useful.

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Some Reflections on Entering Medical School *

IT is sincerely a pleasure to welcome you to Creighton University, to the Medical School, to Omaha and most importantly, to the medical profession. I must admit that I still remember something of the excitement, wonder, and yes, even a bit of fear which I experienced on the first day I went to medical school. Although that was several years ago, those memories are still reasonably fresh in my mind. I would like at this time to share with you some of my thoughts and reflections and hope that they will be appropriate for your first day here. My remarks will be highly personal and are made as a physician rather than as an executive officer of this institution. Furthermore, I hope my remarks will apply to all physicians and students alike, regardless of special interests.

The years immediately ahead of you will be the most formative years of your career. During these next few years you will develop habits which will remain with you throughout your professional life. It will be important, then, that you cultivate those habits and qualities which are indispensable attributes of a successful physician.

I will speak of only a few of these attributes. First, I would suggest that you develop the habit of doubting. Doubt everything that you read and hear. Ask questions over and over and over again until you fully understand the what and the how and the why of every facet of medicine. This doubt need not imply a lack of respect for your teachers nor a lack of appreciation for those who have gone before you. Rather the doubt of which I speak implies recognition of the fallibility of the art and science of medicine. What appears true in view of today's knowledge may prove to be inaccurate at another time. Dogma and blind faith do not permit one to exercise sound judgment, and without sound judgment the great advances in medicine cannot be applied wisely and effectively to those who entrust their health to you.

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Secondly, you need to cultivate humility as a professional because it is only with the recognition of ignorance and inequities that progress will be made. At the time you graduate there will be a temptation to reflect with pride on the mass of knowledge you have assimilated. But once you return to the real world you will realize immediately that we have little understanding of man and his problems. We must, therefore, cultivate the discipline of the student and concentrate our efforts on understanding the problems of man. If we do this, our education will not be a college course, nor a medical school course but it is a life-time course.

Thirdly, you must learn to love your neighbor. You may become the best scientist in the world, and you may master the great volumes of medical information, but, unless you can truly love your fellow man, you will be capable of treating disease but totally incapable of relieving the suffering and the mental anguish that always accompanies that disease.

Upon entering the medical profession you will be faced with a new set of responsibilities. You will have a responsibility to your patients, to society, to your colleagues, to your families and to yourselves. You may wonder how the education process can help you develop the attributes necessary to assume these responsibilities. Allow me to touch upon only a few of the characteristics of the educational process upon which you are about to embark.

Obviously your education began long before you entered medical school. The attributes of honesty, integrity, and humility should have been developed by the time you

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reached adolescence. All that medical school can do is reinfluence them, put them in sharper perspective and focus them on a particular series of relationships and situations.

The same may be said to some extent of an interest in human beings and their emotional and social problems. But in medical school this interest and intuition can be the basis for learning how to evaluate people and how to help them best. An interested, compassionate layman can administer sympathy. A physician should be able to do that and much more. The necessary knowledge and skills can be taught and learned. One most important attribute of the physician which clearly separates him from the interested, compassionate layman is the familiarity and clear understanding of the scientific basis for the recognition and relief of human illness. This understanding and mastery of the scientific basis of disease processes is always relevant to the medical student and the practicing physician.

A respect for human beings is presumably present in all of you. You have the background and basis for cultivating this respect with relative ease. One can lean on ethical and moral principles to establish the ground rules of such a relationship, or, for the religiously inclined one can lean on the concept that all men are created in God's image. Regardless of how this is accomplished, it must be done and it can be.

Another obvious aspect of medical education is that it continues for the remainder of your life and medical school is truly only an introduction. If fifteen years from now you are still quoting specific factual views of today's faculty, your education most certainly has stopped, because by that time the faculty will have abandoned these positions in the light of newer knowledge.

Allow me to make a few remarks concerning the short period of medical education that occurs in medical school. Let us be frank with each other. You have had courses in college in which you could settle for knowing enough to get the grade required. Really deep understanding was not always necessary. Instructors can be fooled and indeed you have been in situations where it was

expedient to hide your lack of knowledge, to obscure your ignorance, to answer the examination question by indirection to avoid exposing your inadequacies. Some of you have been in large classes where total anonymity was possible. Don't cause a ripple. Don't let them know you exist and all will come out all right.

Well, the stakes are altered now. In the past, perhaps intellectual honesty was at risk but now each step of knowledge leads to what ultimately forms the total body of knowledge that involves the health of another individual. Anonymity and attempts to obscure ignorance have no place in the education of the physician. On the contrary you must seek out knowledge and expose your own ignorance to yourselves first and then to those who can help you.

The physician has a commitment. He must be dedicated to his responsibilities, to personal honesty and integrity, to knowledge and to people. We are fortunate because our profession offers such diversity. But no matter what form, ours is a profession of service — a fascinating, consuming, exciting, productive profession of service. I am not at all embarrassed to believe and to state my belief that medicine is a most noble calling. From now on you are committed. Your actions and words must bear out this dedication. Your word is your bond. Your demeanor is observed by the layman as well as by colleagues and much is expected. Your responsibilities vary from the small to the very large. All of these must be met with pride in oneself and with dignity.

While I have indicated that I consider medicine to be a great and noble profession, I would hasten to point out that there are some dark clouds on the horizon. While it is true that in the great majority of instances, illness in the United States is handled effectively, efficiently, and economically, this very fact has naturally created a strong reluctance to accept far reaching changes in our present usually good and often excellent system of medical care. But it is this reluctance that is responsible for a surprising paradox: at the very time when the individual physician is supplying better medical care than ever before, there is in the public

mind, a widespread loss of confidence in the profession as a whole. To deny this is to deceive ourselves. The wiser course is to acknowledge it and to attempt to change it.

The future of the medical profession rests on your shoulders. I stand before you to tell you that the quantity of information regarding health and disease is voluminous. There are still diseases and illnesses of unknown cause and for which there is no known treatment but fortunately, these are becoming fewer and fewer.

The quality of the delivery of health care for the most part is excellent. However, it is the delivery of the health care that is so dependent on the attitude and the knowledge of the deliverer, and consequently it is the *delivery* of health care that comes under close scrutiny and is most seriously criticized in this country.

In order to *deliver* good health care, one must first gain the knowledge and master the volume of information that is available, then develop the right attitude toward your fellow man, and then utilize that knowledge in the best possible way to relieve the suffering of your patient.

Many of you come to us this morning, planning to change things, to improve the profession, to give America a better quality of health care delivery. *Don't lose that drive!* Don't fall into the traditional habits and make excuses for the profession. Don't excuse your fellow students and later your fellow physicians for their lack of knowledge — or their inhumane treatment of patients — or their preoccupation with money — or their lack of ethics.

The best way to improve the profession is to start *today* to master the great volume of information which is available for the asking. You will never be qualified to criticize your fellow physician, or the medical profession until first you become a well qualified, well

informed, highly ethical physician with an abundance of love and sympathy for your fellow man.

Once again speaking personally and as one physician I must say that I am proud of my profession. I am proud of many of the traditions established within the profession. I am proud of the accomplishments of my profession. I am proud of you and I hope that you are happy to be here today.

At the time of your graduation you will be asked to recite the Hippocratic Oath. It may be unfair to ask you to accept the serious meaning of such an oath without prior knowledge so that you can decide whether or not the terms are agreeable. For this reason I would like to read to you the Declaration of Geneva to give you some idea of what will be expected of you.

"Now being admitted to the profession of medicine I solemnly pledge to consecrate my life to the service of humanity. I will give respect and gratitude to my deserving teachers. I will practice medicine with conscience and dignity. The health and life of my patients will be my first consideration. I will hold in confidence all that my patient confides in me. I will maintain the honor and noble traditions of the medical profession. My colleagues will be as my brothers. I will not permit consideration of race, religion, nationality, party politics or social standing to intervene between my duty and my patient. I will maintain the utmost respect of human life. Even under threat I will not use my knowledge contrary to the laws of humanity. These promises I make freely and upon my honor."

Perhaps I have been too serious with you this morning but in all sincerity I feel this to be a serious moment. We are happy to have you at Creighton and we are happy to have you in the profession.

Some Suggestions for Testifying in Court

THE purpose of this paper is to offer some suggestions to professionals for testifying in court. It is based upon personal experience and a close friendship with a trial attorney. Hopefully those who read this paper will give better testimony and feel less anxiety on their day in court.

My first experience in court was particularly frightening to me. I was in my sixth month of psychiatric residency when I received a subpoena to appear in court to testify concerning the death of a 30 year old patient I was treating in the emergency room during my internship. I remembered the case well. He was brought in by the rescue squad at about 8:00 p.m. with a chest wound. He was obviously under the influence of alcohol, but was lucid when I talked with him. Physical examination revealed dullness over the left lung and shock. I started IVs in both arms and ordered a stat portable chest film which revealed a left hemothorax. He died about 1½ hours after I first saw him. Because the County Coroner did the autopsy I never learned the results. I was panicky when I received the subpoena, certain that this was going to be made to look as if it were some type of negligence on my part. (Fortunately I am not so paranoid now.) My attorney reassured me that actually they only needed me to say I saw the patient and what I found because they were trying his common-law wife for second degree murder.

I went to the hospital and reviewed the records which stated the facts as above. I was relieved, and prepared for my court appearance by taking notes. On court day I was in for a surprise. Not only were the judge, jury, defendant, and attorneys present, but the press and about a hundred spectators were there also. I had dressed in my most conservative brown suit, got a haircut, and shaved off my sideburns as preparation, but I hadn't expected a circus. The initial questions were the type to allay anxiety, i.e. what is your name, where do you live, what do you do for a living, etc. Next I was asked about the deceased, and basically reported as

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above, responding directly to the jury to mostly yes-and-no questions. Then I was asked to describe his medical condition. Watching the jury closely I learned from their puzzled response that I was using too many polysyllabic words which they didn't understand. I eventually summarized by saying, "The patient came to the emergency room with a chest wound from which he was bleeding inside his chest and he bled to death in spite of my attempts to prevent it." I thought that was an excellent summary. Then the prosecuting attorney took over. He asked if I was certain of the cause of death and I said he died of a *stab wound* in the left chest. He asked how I knew it was a stab wound. There was no weapon brought to the emergency room. I tried to answer by describing the wound but it was obvious I was fumbling. He also commented that I had said the patient bled to death, I agreed. For some reason he stopped his questioning and I was excused.

I felt like a fool for not choosing my words more carefully. However, I learned from this experience that preparation alone is not sufficient. One needs to experience court appearance so that he is less anxious, and more competent in testimony. I later discovered another factor. The attorney told me that he felt the jury was on my side. I looked the part of a cleancut, American M.D. and he was afraid to question me further because it may irritate the jury. I shall always remember that comment. Incidentally, the woman was convicted of manslaughter but given probation because she had seven children, had a clean record, and her husband was both an alcoholic and wife-beater.

My second court appearance was in my second year of psychiatric residency. By this time I had become an expert on drug misuse.

I was asked to testify in a Miranda hearing as an expert on drug misuse. This type of hearing is held before the judge, without a jury, to ascertain whether there is enough evidence to justify a trial. The defendant was a 24 year old narcotic addict with whom I was not acquainted. The charge was burglary. I worked about 15 hours perusing the literature and discussing the case with the attorney from the Legal Aid Society. I refused to see the defendant clinically because I felt there might be bias. This proved to be true, since it was the first question the prosecuting attorney asked me. The defending attorney wanted to show that a person suffering from narcotic withdrawal would do almost anything to get narcotics and should be given treatment rather than punishment. The prosecuting attorney was very poorly prepared, e.g. knew next to nothing about drug misuse. He attempted to attack my credentials and since the judge already knew me that was an error. It merely made him look bad. After a one half-hour testimony I guessed the judge was in a quandary as to what to do. There were no more questions and as I was getting ready to leave the stand he said, "Would you mind answering a few questions for me?" I agreed to, and he asked me some very perceptive questions about motivation for treatment, types of treatment, prognosis, etc. He also asked me some very simple questions which prompted me to think later, if judges are deciding what to do with drug misusers, shouldn't they have some factual data available to help them? He decided a jury should decide on the innocence or guilt of the defendant; and my third trip to court was as an expert witness complete with a jury.

This time the prosecuting attorney had either prepared better or learned something from the Miranda hearing. The actual issue in this case was whether the defendant was addicted to heroin or just using it. The jury wasn't impressed with the records of his symptoms (he had been examined twice at County Hospital), and found him guilty of burglary. I think in this case I actually convinced the jury he was not an addict. I was only present for my testimony and didn't know that the examining M.D. said he was malingering. When I described the

symptoms of withdrawal as a combination of severe flu with a severe cold (note my simple language) combined with restlessness, I sank the defendant's case. He had few, if any, of the withdrawal symptoms which I described. The defending attorney had intentionally withheld the facts from me because he wanted to test the issue of diminished responsibility of a narcotic addict. This case prompted some serious soul searching. Do psychiatrists really belong in court before the verdict is decided? I would rather see psychiatrists available for consultation with the judge, and possibly the jury, to discuss prognosis after the issue of guilt or innocence has already been decided. When psychiatrists go to court and contradict each other it decreases the validity of psychiatry as a specialty, and to me serves no useful purpose. If the psychiatrist is on neither side it would be less likely to be a problem.

My last sojourn to court was on a divorce case. In this state either party can contest a divorce. The husband, a sophomore medical student, sought my help for marital counseling. I recommended that both be seen in marital therapy. The wife refused, and since the husband had a situational reaction without other significant psychopathology, I saw him only twice. He asked me to testify in his behalf in court. The issue quickly became who was telling the truth, and I again made a mistake in this case. The subject of lying was introduced by the prosecuting attorney. When we discussed the case beforehand it never occurred to me how vague the term lying is. I made the bold comment that while doing a mental status examination it is usually possible to tell whether the person is lying. I was thinking of pathological lying so typical of people with antisocial personality disorders. The judge pointed out if I were so good at telling who is lying I could replace the entire court system. I then explained what I meant and the judge accepted my answer. My other mistake in this case was discussing mental status examinations. Laymen don't believe a psychiatrist can do much by just talking with a patient for an hour or so. They don't accept mental status examinations and dynamic case formulations readily, probably because psychiatrists disagree so much, and besides it makes the people

anxious to think a psychiatrist can do a mental status examination on them. The judge was the author of our state's first no fault divorce bill which was pending in the legislature at the time. He granted the divorce.

In summary I shall list the things I have learned in court. Maybe they will save you some anxiety on your day in court.

- 1) Call the attorney and ask him what he wants.
- 2) Keep good records.
- 3) A subpoena only means you must go to court, it has no reference to guilt or innocence.
- 4) Be prepared and stick to the facts.
- 5) Dress conservatively and be well groomed.
- 6) Find out all you can about the judge before going to court.
- 7) Ask yourself the question, "Do psychiatrists belong in court?" Answer it to your satisfaction.
- 8) Visit court to desensitize yourself.
- 9) Speak in layman's language as much as possible.
- 10) Think *before* you speak and only answer the questions asked.
- 11) Never show anger. Many attorneys'

pleys will make you angry, but if you show it you will lose face with the judge and jury.

- 12) Talk directly to the jury and watch their non-verbal behavior. The testimony is for them.
- 13) If you go to court as an expert witness, don't examine the defendant first unless the court asks you specifically to do this. If you follow this rule you can answer hypothetical questions easier.
- 14) Be careful of language that is only understood by other specialists, e.g. psychopathology, lying, ambivalence, etc. You will probably have to define them.
- 15) Don't frighten the layman with your omnipotence. Obsessive thinking doesn't belong in court.
- 16) Don't bluff. If you do not know the answer, say so.
- 17) Answer questions one at a time. (Attorneys like to couple questions before you can answer. Usually the answer to the first is no, and the second is yes.)
- 18) Discuss your fee in advance with your attorney. The other attorney will likely attack it. Most charge \$35-50 per hour. Remember you get paid both for the time of preparation and the testimony.
- 19) Keep your cool.
- 20) Good Luck.

LB 806 — The New Mental Health Commitment Act: How Does It Work?

Introduction

IN late December, 1975, the Federal District Court of Appeals declared Nebraska's previous commitment law unconstitutional. This was done mainly because of its failure to adequately protect patients' rights, including the right to due process of law. It then became necessary for the Nebraska Legislature to pass a new law within the federal guidelines. As Legislative Representative of the Sioux Psychiatric Society, I worked with legislators and the authors of the new bill in an attempt to make it more workable. Dr. James Wengert, the Society's previous Legislative Representative, worked closely with me in this effort.

LB 806, as passed, is an extremely long and complicated document. I will first attempt to present the important points in the law and then comment on its perceived strengths and weaknesses after several months of working under this legislation.

What Does it Require?

1. Only "dangerous mentally ill" persons can be involuntarily committed by the new Boards of Mental Health in each county. Such as person is defined as:
 - (a) a mentally ill person who presents a substantial risk of serious harm to another person or persons within the near future, as manifested by evidence of recent violent acts or threats of violence, or by placing others in reasonable fear of such harm; or
 - (b) a mentally ill person who presents substantial risk of serious harm to himself within the near future, as manifested by evidence of recent attempts at, or threats, of suicide or serious bodily harm, or evidence of inability to provide for his basic human needs, including food, clothing, shelter, essential medical care or personal safety.

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2. Any person believing that an individual is a mentally dangerous person may communicate this belief to the County Attorney in the county where the person is found.
3. The County Attorney, upon a showing of good cause, then files a commitment petition with the Clerk of the District Court. The Clerk may then have the sheriff serve a summons ordering the alleged patient to appear at a preliminary hearing, at which the Mental Health Board will determine whether there is sufficient evidence (probable cause) to find the person to be dangerously mentally ill and in need of involuntary commitment.
4. If the Board finds sufficient evidence, the patient will be ordered to appear at a final hearing, at which there must be "clear and convincing" proof that the subject is dangerously mentally ill, and that treatment less restrictive than hospitalization is insufficient to prevent harm to self or others. At that time, the Board may order inpatient treatment or schedule a disposition hearing for a later date, to allow time to seek appropriate alternatives.
5. If the patient is involuntarily committed, the sheriff will be ordered to accompany the subject to the appropriate facility, where he or she will be observed and treated for a maximum of 60 days. At this time the Director must certify the patient to be dangerously mentally ill or release the patient.
6. There are provisions in the law for emergency cases. Any law enforcement

officer can sign a patient into a hospital on a "peace officer hold" pending the preliminary hearing. It must be emphasized that this can only be done by a peace officer and not by one or more physicians, as the "two physician hold" has been declared unconstitutional.

7. The new law contains a lengthy list of patient rights. These include the right to counsel at all hearings, the right to be present at all hearings and to hear the evidence against him, a right to cross-examine all witnesses who testify against him, a right to secure independent psychiatric evaluations for use in his defense, the right to subpoena witnesses to testify for him and the right to access to essentially all documents involved in the case. Many other rights are also listed in LB 806.
8. Section 29 of LB 806 relates to voluntarily admitted patients. Such a patient must be released within 24 hours after delivering a written request to any hospital official, unless action is taken under the law to continue the patient's hospitalization. This is a marked change from the old law and procedures.
9. An involuntarily committed patient has the right to refuse treatment except such treatment as is essential in the judgment of the physician in charge of treatment to prevent the patient from harming himself or others, or which will substantially improve the mental illness. This exception was written into the law just before passage. Without it, the treating physician would have been placed in an impossible double bind, involving the obligation to treat a mentally ill dangerous patient, who would have the right to refuse the treatment determined essential to improve the very mental illness for which the patient was committed.

It is not necessary for the Mental Health Board to have a physician as one of its three members. This was written into the bill because some smaller counties in Nebraska may not be able to find both a physician to sit on the Board, and an independent examining physician. These two roles may

not, according to the federal guidelines, be filled by the same physician.

Strengths

1. The new law protects the patient's rights and prevents any possible railroading of patients for improper or inadequate reasons.
2. It is now possible (and is actually being done in some counties) for the Mental Health Board to meet at the facility where the patient is hospitalized. This prevents unnecessary and possibly dangerous transportation of the patient to a separate building (as a county court house.)

Weaknesses

1. The law has gone too far when it gives peace officers the right to sign patients into hospitals on an emergency basis and denies this right to physicians. This seems to imply the obviously false assumption that peace officers are somehow better trained to make this judgment than a fully trained and licensed physician.
2. The procedures are cumbersome, time consuming, and expensive for the counties involved. For instance, the presence of three attorneys is required at all hearings, the County Attorney or Deputy County Attorney, the patient's attorney, and the attorney who is the chairman of the Mental Health Board. The other two members of the Mental Health Board, or properly appointed substitutes, must also be present at all hearings.
3. In some counties the issue of dangerousness as proven by recent overt destructive acts or threats is being over-emphasized. The part of the law related to the patient's inability to meet basic needs seems to be completely ignored. This can result in the Board-ordered release of some very sick and clearly psychotic patients back into the community. The prognosis for these patients, in terms of human suffering as well as dangerousness, remains guarded.
4. The limitations in the law which prevent

physicians from implementing emergency hospitalization is extremely detrimental to all concerned. Hopefully, the legislators will change this in their upcoming session.

5. The inability of a physician to implement emergency hospitalization seems to reflect a basic distrust of physicians, their judgment, and their intentions. This is also reflected by occasions when local Mental Health Boards have ordered the release of patients, over the objections of the physician-member of the Board, the independent examining psychiatrist, and the treating physician. Such attitudes are clearly contrary to the best interests of patients. Sooner or later such decisions may result in patients "dying with their rights on."¹
6. At times it is antitherapeutic for the patient, who is often in a very disturbed state, to hear the testimony against him by his friends and family, and often by the treating physician. This may tend to alienate the patient from the people who provide important social support in the community, and interfere with the establishment of a therapeutic relationship with the treating physician.
7. The entire process is so complex and surrounded by legalistic jargon that it is difficult for anyone to understand. This

includes the patient, the families, the physicians, and often even members of the Mental Health Boards and the involved attorneys.

8. The manner in which the hearings are conducted often resembles a criminal trial. Indeed, under the law no evidence can be presented which would be inadmissible at criminal proceedings. This tendency towards criminalization of the mentally ill is destructive and harmful to the patients involved.

Conclusion

It is hoped that this will serve to clarify some of the complexities of the Nebraska's new mental health commitment law, LB 806. This is not a comprehensive review of either the strengths or weaknesses of this legislation. If other significant problems have arisen, the physicians of Nebraska should bring them to the attention of their Mental Health Board, District Court Judge, or legislators. When LB 806 was passed, we knew that problems would arise. It is imperative that we work together with other mental health professionals and with interested attorneys to amend LB 806, in order that it may function more smoothly, and thus more effectively protect both the patients and the community.

Reference

1. Treffert DA: Dying with their rights on. Prism, February, 1974.

Down Memory Lane

1. Infection of the human intestine by protozoan parasites, particularly *Entamoeba histolytica*, *Chilomastix mesnili* and *Giardia*, is common in Nebraska.

2. In recent history the antiseptic method reveals a wide spread and almost frantic search for efficient antiseptics. This has resulted in marked over-emphasis of the importance of active antiseptic wound treatment.

3. Homeopathy must be credited for having given a death-blow to polypharmacy, heroic dosage, to have aided in the general recognition of the principle of *vis medicatrix naturae*, sanitation, hygiene and to have brought into use a number of remedies still thought useful in therapeutics.

4. Physicians should take pains to inform those of their regular clientele, who are contemplating motor trips during the summer, of the benefits to be derived from typhoid-paratyphoid inoculations.

5. Chinese doctors get their professional

training by being apprenticed to a practicing physician and learning his secrets.

6. The number of deaths from peritonitis is not decreasing, in spite of the condition being a matter of common knowledge.

7. From the days of Hippocrates various cults have arisen.

8. A doctor had opened a peritonsillar abscess, and the patient had coughed in his face. Twenty-four hours later he began to feel grippy and developed septic sore throat, which ended fatally.

9. The American diet taken as a whole is far from nutritionally adequate.

10. Editorial service should be paid a compensatory sum to get the best results. With the best intentions any physician of average ability cannot give one fourth of his time, year after year, for the good of the cause and without compensation.

Nebraska State Medical Journal
June, 1927

President's Page

WE WANT TO HELP YOU

- We— The Nebraska Medical Association, officers, committees, councilors, delegates, president, staff, and all the rest.
- Want— Eagerly and anxiously want to exert, expertise, political power and advice that our great organization possesses.
- Help— This is the subject of this page.
- You— The physicians in Nebraska.

The medical profession is criticized for allowing the incompetent doctor to practice. The accusing finger is leveled at the rare physician who has given way to drink or drugs because of the pressures of his exacting work. Maybe his competency is compromised for some other reason. Law 877 takes legal steps to eliminate the incompetent doctor but we want to help before legal steps are necessary by constant vigilance of our colleagues. If you know a colleague that is insidiously getting into trouble, counsel with him or call on your friends to help you counsel him. Maybe he can be saved from destruction. Try to eliminate the problem before it gets too serious. Sometime a word from a friend to a colleague reclaims one who is slipping professionally, morally, or in effectiveness and expertise.

Your society is setting up a procedural method to reclaim the doctor needing help. We would like to think our peers would voluntarily help the troubled physician. Sometimes this can be done on a one to one basis but other times there is strength in numbers so a program is being formulated.

Anyone spotting a physician not adhering to our rigid code of ethics and standards should do something about it. This could be another doctor, patient, institution, or any interested person. The concern should be channeled to the board of councilors. There the chairman will look at the problem, contact the accused as well as the president of the local county society and the councilor of that district, and the three could talk things over, possibly resolving the problem.



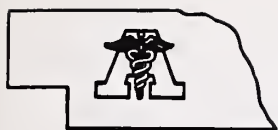
This is done before any criticizing action is taken with the hope that the accusation is false or that some simple solution would resolve the problem and at the same time trying to find support for the member being accused. In the future, this type of action may be expanded to even non-member physicians, all done with the idea that the medical world does indeed look out for its constituents as well as the public.

After council action the problem could be terminated or sent on to Professional Ethics or Peer Review Committee. If still not resolved, then it could go to the board of examiners.

For this system to work effectively, everyone must cooperate, help the distressed physician, turn the problem around if one exists.

By this program the problem could be nipped in the bud but the early approach of a colleague before things got out of hand is so structured to handle the most difficult of problems in an expeditious manner. Take advantage of this plan. Help a colleague, improve our image by making the plan work. This is peer review without outside interference.

Arnold W. Lempka, M.D.



The Auxiliary

NEBRASKA MEDICAL ASSOCIATION AUXILIARY — ANNUAL STATE CONVENTION MEETING — MAY 1-4, 1977 REPORT: RESOLUTIONS COMMITTEE

WHEREAS, We consider it fitting and proper to express our thanks to all who have contributed to the success of the convention and the accomplishments of our past year's work; therefore be it

RESOLVED, That we, the members of the Nebraska Medical Association Auxiliary, extend our grateful thanks and appreciation to the officers and other members of the Executive Board of our organization, who have so ably carried on the business necessary for the proper functioning of the Auxiliary; and be it further

RESOLVED, That our thanks and appreciation go to the members of the Auxiliary to the Greater Omaha Medical Society, hostess to this Fifty-second Annual Meeting, for the welcome hospitality extended to all of us; and be it further

RESOLVED, That we express particular gratitude to Mrs. Robert Stryker and Mrs. John Hoesing, Convention Chairmen, and to their committee chairmen for their work and thoughtfulness in planning for our convenience and entertainment, and be it further

RESOLVED, That the Nebraska Medical Association be advised that we appreciate their leadership and assistance, and, for including us in the Symposium on Suicide — "Reflections on Suicide and Suicide Prevention," that in particular Dr. Harlan L. Papenfuss, President of the Nebraska Medical Association, and the Advisory Committee, Dr. Gordon Francis, Chairman, be informed of our gratefulness for their help and guidance throughout the year, and be it further

RESOLVED, That Dr. Frank Cole, Editor of

the Nebraska Medical Journal, Mrs. Warren Bosley, Editor of the NEWSLETTER, Blue Cross-Blue Shield for their continued interest and support of our NEWSLETTER, Mr. Kenneth Neff, Executive Secretary of the Nebraska Medical Association, Mr. William Schellpeper, Assistant Executive Secretary, and the office assistants for their help in preparing materials and mailing the NEWSLETTER, be advised of our sincere thanks for the efficient way they have handled our Auxiliary news, and for their ready assistance whenever we asked for it, and be it further

RESOLVED, That we express our thanks to the management of the Holiday Inn in Omaha, the Joslyn Art Museum, the General Crook House Restoration Society, and the Omaha World-Herald, and be it further

RESOLVED, That we pledge our loyalty and devotion to the Nebraska Medical Association Auxiliary; that we continue to be faithful in supporting its activities; promoting its projects and protecting its reputation and high ideals, and be it finally

RESOLVED, That these resolutions be published in the NEBRASKA MEDICAL JOURNAL.

Respectfully submitted
Mrs. Frank H. Tanner
Chairman

WE ARE PROUD TO ANNOUNCE THE WINNERS OF THIS YEAR'S AWARDS

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Medical Center
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Auxiliary
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Picture Gallery

NMA 1977 ANNUAL SESSION



Doctor Carlyle E. Wilson, Jr. presiding at Board of Councilors session.



Board of Councilors session.



Board of Councilors session.



House of Delegates session.



House of Delegates session.



Doctor Harlan L. Papenfuss addressing House of Delegates.



Doctor Harry W. McFadden, Jr. presiding at House of Delegates session.



House of Delegates Reference Committee.



House of Delegates Reference Committee.



House of Delegates Reference Committee.



House of Delegates Reference Committee.



House of Delegates Reference Committee.



House of Delegates Reference Committee.



House of Delegates Reference Committee.



Doctor Edward A. Holyoke, Jr. presiding at Medicine and Religion Dinner.



Doctor Arnold W. Lempka introducing Medicine and Religion Dinner speaker.



Doctor Ned H. Cassem speaking at Medicine and Religion Dinner.



Doctor Warren G. Bosley presenting Reference Committee report.



Doctor Herbert E. Reese presenting Reference Committee report.



When choosing a diuretic for day-in-day-out hypertension control with comfortable compliance...

The agent you choose in mild to moderate essential hypertension should offer (1) long-term effectiveness, (2) patient comfort and compliance.

Zaroxolyn offers both.

In one long-term study¹ Zaroxolyn brought moderately elevated (average 161/109 mm Hg) blood pressure down to the range of normotension—and held it there for a year or more.

The investigator noted, "Patient cooperation was surprisingly good for a study of such duration [2½ years]. The once-daily dosage schedule with

metolazone [Zaroxolyn] no doubt contributed to patient compliance."

Overall compliance with Zaroxolyn is good—very good. An analysis of controlled clinical studies involving 188 Zaroxolyn patients showed that only eight discontinued therapy because of side effects. That's a discontinuation rate of only 4.3%, and broader clinical experience appears to substantiate this low rate²

Zaroxolyn. For long-term control and comfortable compliance in mild to moderate hypertension.

Recommended initial dosage in mild to moderate essential hypertension—2½ to 5 mg once daily

Zaroxolyn[®]

(metolazone, Pennwalt)

2½-mg, 5-mg and 10-mg tablets

once-daily antihypertensive diuretic

Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:**

Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease. **Contraindications:** Anuria, hepatic coma or precoma; allergy or sensitivity to Zaroxolyn. Or, as a routine in otherwise healthy pregnant women. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is particularly hazardous in digitalized patients; angina or fatal arrhythmias may occur. Hyponatremia and hyperuricemia may be noted or precipitated. Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced. Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing

age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose.

Observe patients for signs of fluid or electrolyte imbalance. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur in edematous patients in hot weather.

Adverse Reactions: Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth,

hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks.

Usual Initial Once-Daily Dosages: mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg, edema of renal disease—5 to 20 mg. Dosage adjustment may be necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg

References:

- 1 Dornfeld L, Kane R: Metolazone in essential hypertension. The long-term clinical efficacy of a new diuretic. *Curr Ther Res* 18: 527-533, 1975.
- 2 Data on file, Medical Department, Pennwalt Prescription Products.

 **PENNWALT**

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Pharmaceutical Division
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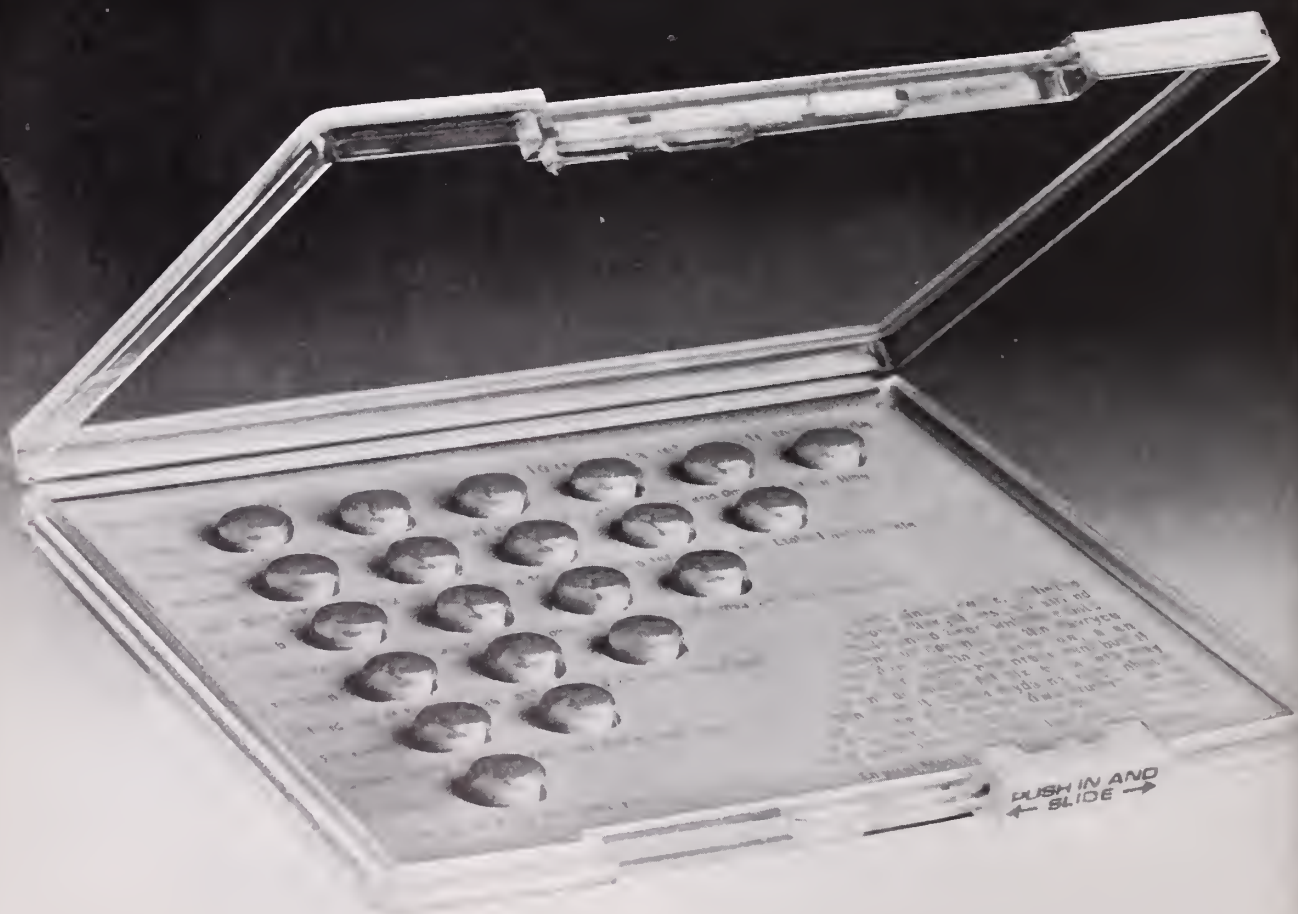
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The explicit printed dosage instructions that accompany each Dosepak make it easy for the patient to understand and follow the dosage regimen.



Between Cases

Nebraska?

He was seen in Omaha in a state of confusion.

Just this side of chaos.

On Operations, Fees, And Pain.

If you had a dollar's worth of pain before your operation, how much change do you have left?

Anon.

I Understand, I Think.

The future isn't what it used to be.

Ibid.

Postgraduate Gem Of The Month.

Beware of the doctor who is good at getting out of trouble.

Anon.

Words I Can Do Without.

Addendum, adjunct, adjuvant.

O To Be In England.

Our bed rails are their cot sides.

Quote Unquote.

Towards the actual person who has died we adopt a special attitude: something like admiration for someone who has accomplished a very difficult task.

Freud

On Consultation.

You're stupid.

I'd like a second opinion.

All right, you're ugly, too.

O Boy.

A young lady, coming into a physics laboratory, saw an inverted image of herself in a large curved mirror and said, they have hung that mirror upside down.

Conversational Pearl Of The Month.

To someone who has just come in, wearing a raincoat, carrying an umbrella, and dripping water.

O, is it raining?

I agree.

Why think, why not try the experiment?

John Hunter, in a letter to Edward Jenner.

On Signatures.

Nobody is so busy that he cannot sign his name. The initials at the bottom of a report are too often an undecipherable group of letters. Sign your name; somebody may want to know who wrote it.

See?

—F.C.

WashingtonNotes

Ceiling on hospital revenue increases.

The Congress has received its first major health bill from the Carter Administration — a massive and complicated program for limiting hospital revenues to a nine or ten percent rise annually. Income from all inpatients, private as well as federal beneficiaries, would be affected.

Hospitals exceeding the allowable increase could be socked with a penalty tax amounting to 150 percent of the overcharges. Such offenders also would have to reduce charges the following year.

Physicians' offices were not affected by the proposed legislation, though Health, Education and Welfare Secretary Joseph Califano has indicated this is under study.

"Unrestrained health costs also restrict our ability to plan necessary improvements in our health care system," Carter said. "I am determined, for example, to phase in a workable program of national health insurance. But with current inflation, the cost of any national health insurance program the Administration and the Congress will develop will double in just five years."

Inpatient revenues of the 6,000 acute-care hospitals in this country are covered. New hospitals, federal hospitals, and hospitals controlled by Health Maintenance Organizations (HMOs) would be exempt.

The legislation also imposes a limit on new capital expenditures, fixing a national level for such expenditures below that of recent years and allocating new capital spending among the states by formula. With the assistance of local planning agencies, each state would determine how the hospitals can make capital expenditures.

States which operate cost containment programs which are capable of meeting the federal criteria could continue their own regulatory approaches.

President Carter said his program will save about two billion dollars in fiscal year 1978 — starting next October. This would

work out to over \$650 million in the federal budget, over \$300 million in state and local budgets, and almost \$900 million in private health insurance and payments by individuals. In fiscal year 1980, total savings were put at \$5.5 billion.

Our health.

The nation's health shows steady improvement, according to a 25-year mortality survey by the National Cancer for Health Statistics.

Since 1950, the death rate from stroke and heart disease declined steadily in those aged 25 to 74; and deaths from tuberculosis, once a leading cause, now number 3,000 annually.

Dorothy Rice, the Director of the Center told the Senate Health Subcommittee, "the spectacular decline in death rates from heart disease may well reflect improvement in medical care . . . there appears to have been no reduction in the incidence of heart disease during this period of sharply declining mortality."

The mortality rate from heart disease dropped 30 percent in those aged 45 to 74, with the biggest gains coming in the last six years.

The death rate from stroke fell even more sharply during this period — a 50 percent decline for the 45-64 age group and a 45 percent reduction for those 65 to 74.

The aging of the entire U.S. population is demonstrated by the decline in the overall death rate. After leveling off in the 1960s the death rate has steadily declined in the 1970s and reached an all-time low in 1975 of 8.9 deaths per 1,000 population.

Lung cancer had the biggest jump in death rate, doubling in men and going up four times in women since 1950.

The increase has offset declines in the death rate from cancer of the stomach, rectum, cervix, and uterus.

Infant mortality declined from 29.2 to 16.1 deaths per 1,000 live births, but the United States still ranks 15th in infant mortality.

Federal Trade Commission.

A crucial vote is coming soon on legislation to arm the Federal Trade Commission with strong new powers over business and to expand its authority over nonprofit groups including medical associations.

The FTC has been very active for more than a year in the medical field, taking actions against medical ethical advertising codes, relative value scales, antitrust inquiries about possible resistance to Health Maintenance Organizations (HMOs), challenging the validity of professional accreditation, among other moves.

Heretofore, the Agency has not had the power to act against nonprofit associations without contending that it is dealing with aspects that are essentially commercial. The bill before the House Commerce Committees would for the first time make nonprofit, professional groups a clear responsibility of FTC.

The AMA has urged that non-profit organizations not be placed under FTC control.

Under H.R. 3816, the FTC could seize the assets and records of nonprofit associations, and levy fines up to \$5,000 per day. The

AMA warned that this extreme power was being granted, not to the normal repository of such authority — the judiciary — but rather to a federal agency.

Child health.

President Carter has sent an expanded child health screening program to Congress.

The Child Health Assessment Program (CHAP) will replace Medicaid's Early and Periodic Screening, Diagnosis and Treatment Program (EPSDT) for children. The CHAP legislation calls for new spending of \$180 million.

Under the bill, the average federal payment to the states for health care provided to children would rise from the current 55 percent to 75 percent.

Benefits would be extended to children under age six whose family income level makes them eligible for assistance but who do not meet additional state eligibility requirements.

States would be encouraged to assure the availability of comprehensive health providers for low-income children.

Welcome New Members

Harold A. Baltaxe, M.D.

University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Robert M. Fenton, M.D.

Department of Family Practice
University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

Denitsu Hirai, M.D.

Veterans Administration Hospital
600 South 70th Street
Lincoln, Nebraska 68510

Warren R. Jacobson, M.D.

Omaha-Douglas County Health Department
3939 Leavenworth
Omaha, Nebraska 68105

Lon W. Keim, M.D.

530 Doctors Building
Omaha, Nebraska 68131

Oliver T. Nikolovski, M.D.

Nebraska Psychiatric Institute
602 South 45th Street
Omaha, Nebraska 68106

Stephen G. Swanson, M.D.

1701 "K" Street
Lincoln, Nebraska 68508

Bruce E. Taylor, M.D.

Box 81009
Lincoln, Nebraska 68501

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —

June 4 — Grand Island — Nebraska

Veterans Home

June 25 — Ogallala — Elks Lodge

July 23 — Chadron — Elks Lodge

July 30 — Norfolk — Elks Lodge

AMERICAN MEDICAL ASSOCIATION —

Annual Convention, June 18-23, 1977, Fairmont Hotel, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRI-

CIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

NEBRASKA MEDICAL ASSOCIATION

FALL SESSION — September 29 & 30, October 1, 1977, Lincoln Hilton Hotel, Lincoln, Nebraska.

45TH ANNUAL POSTGRADUATE AS-

SEMBLY, Omaha Mid-West Clinical Society; Omaha Hilton Hotel; October 31, November 1 and 2, 1977. For information contact: Janet S. Noll, Executive Secretary, Omaha Mid-West Clinical Society, 540 Medical Arts Building — 402-345/7146, Omaha, Nebraska 68102.

AMERICAN MEDICAL ASSOCIATION —

Interim Session, House of Delegates, December 4-7, 1977, Palmer House, Chicago, Illinois.

AMERICAN MEDICAL ASSOCIATION —

Winter Scientific Program, December 10-13, 1977, Miami, Florida.

COLONOSCOPY TRAINING PROGRAM —

The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

NEBRASKA MEDICAL ASSOCIATION

ANNUAL SESSION — April 30 - May 3, 1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

Medicine*news*

Policy statement.

At the Congress on Medical Education and the Alliance for Continuing Medical Education held in Chicago, Illinois, January 26 to 30, 1977, members of the Nebraska Board of Medical Examiners participated in meetings dealing with continuing medical education, physician continued competency, and periodic relicensure. Multiple and diverse fields of interest were represented including medical licensure boards, medical educators from university and community hospitals, and pharmaceutical companies and representatives from federal and regional government. The philosophies and concepts expressed at the meeting represented a cross section of national policy.

The primary problem faced by the participants was the ability to measure a physician's continued competence and its relationship to the delivery of health care. Physician continued competence is based upon multiple, subtle and intangible factors which cannot be measured by present testing standards. The delivery of quality health care by a physician is dependent upon a multiplicity of factors over which the physician has little control. In view of these complex problems it is felt that one cannot objectively measure a physician's performance in the delivery of health care.

Continuing medical education constitutes a secondary problem but is less complex. All participants agree that continuing medical education is beneficial, and endorse physician participation. There was also consensus that each physician derives varying benefits from the different modalities of continuing medical education — reading journals can be more educational than attending conferences for selected physicians. It was also recognized that non-accredited local hospital meetings can be as beneficial as accredited category I courses. Nor was there any question that mere attendance at continuing medical education courses constituted continuing education. But a definite question or problem arose in relating continuing medical education to physician competence. Multiple

studies have been carried out showing increased physician knowledge following continuing medical education, but no one has been able to reliably show that it improves physician competence or his delivery of medical care. One speaker questioned whether a valid study could ever be performed to show a relationship between continuing medical education and physician competence.

The basic question inherent in this discussion is the relationship of physician competence to licensure or relicensure. Initial licensure is based upon specific and objective criteria relating to competence. No one, however, has developed criteria for relicensure which can be applied to the practicing physician. A number of states now require continuing medical education as a requirement for relicensure. The California state legislature directed its Medical Qualifications Commission to develop criteria to determine individual physician competence. But to date there are no studies, information, or criteria to document that continuing medical education improves physician competence or improves the care delivered to the public. Until there is evidence to suggest how this may be done, the Nebraska Board of Examiners in Medicine and Surgery stands opposed to continuing medical education as a requirement for relicensure.

Nevertheless, the Board strongly endorses all forms of continuing medical education and recertification on a voluntary basis. Furthermore, it encourages that state and local medical societies, the specialty organizations, and each hospital to encourage their respective members to show evidence of continuing medical education. It suggests that each society take an active role in promoting continuing medical education by presentation of courses, by providing incentives for its members, and by setting standards for excellence. Additional measures should be taken by the state and county societies to activate their peer review group and encourage them to take a more aggres-

sive role in locating and censoring the incompetent or delinquent physician. Individual physicians must be more diligent in helping the sick doctor to seek treatment. The credentials committee of each hospital must review the privileges of each member with closer scrutiny and deny privileges where deficiencies are found.

The objective of the Board is to license only physicians of highest competence. It is felt that competence can be maintained if the physicians of Nebraska make a diligent effort to follow the recommendations outlined above. If this can be accomplished, and high standards of competence be maintained, then meaningless requirements for continuing medical education need not be mandated by

regulatory agencies.

John C. Sage, M.D., Member
For the Nebraska State Board
of Examiners in Medicine and Surgery

Radiologists named.

Six Nebraska radiologists have been cited for distinguished medical achievements by being named Fellows of the American College of Radiology.

The newly elected Fellows are Prentiss M. Dettman, M.D., Omaha; Gordon F. Johnson, M.D., Omaha; Neil P. Kenney, M.D., Omaha; Warren E. Richard, M.D., Hastings; Bradley B. Woodruff, M.D., Grand Island; and Jack R. Zastera, M.D., Omaha

Mode of Presentation of Juvenile Diabetes —

D. V. Hamilton et al (Norfolk and Norwich Hosp, Norwich, Norfolk, England) Br Med J 2:211-212 (July 24) 1976.

Sixty-six children under the age of 17 years were studied to determine the mode of presentation with special reference to the duration of symptoms before the diagnosis was made. Although polyuria, polydipsia, and weight loss were the most common symptoms, other important symptoms included fatigue, lethargy, malaise, and secondary enuresis. A gradual onset of diabetes was more common than is generally realized (29 of the 66 children had symptoms for more than one month before diagnosis), while six children had symptoms for less than one week. One of two children with maturity-onset type diabetes had a strong family history of this type of diabetes.

The bed has become a place of luxury to me!
I would not exchange it for all the thrones
in the world.

Napoleon.

Use of Coagulation Tests to Predict Clinical Progress of Preeclampsia —

P. W. Howie et al (Univ Dept of Obstetrics and Gynecology, Royal Maternity Hosp, Rottenrow, Glasgow, Scotland) Lancet 2:323-325 (Aug 14) 1976.

The clinical manifestations of severe preeclampsia are normally separated from those of mild preeclampsia and normal pregnancy on arbitrary grounds. A clinical index, based on the increase in diastolic blood pressure and the presence of proteinuria, was developed to reflect the spectrum of disease from mild to severe preeclampsia. This was related to a coagulation index based on the platelet count, plasma factor VIII, and serum fibrinolytic degradation products. The two indexes were shown to be strongly correlated. All cases of perinatal death associated with preeclampsia had coagulation indexes in the most severely abnormal range. Intravascular coagulation seems to be a highly characteristic feature of preeclampsia.



"You're referring me to Dr. Gabel? But Dr. Gabel referred me to you!"

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RECENT UNMC GRADUATE with Medical Internship looking for Locum Tenens during July-August, 1977. Write to: Box #59, NEBRASKA MEDICAL JOURNAL, 1902 First National Bank Building, Lincoln, Nebraska 68508.

RADIOLOGIST: Head Radiology Dept. in 95-bed acute care hospital. Progressive, rural community in western Nebraska, 200 miles from Denver, Colo., skiing, etc. Position open July 1. Contact Administrator, Saint Mary Hospital, Box 591, Scottsbluff, NE. (308) 632-8000.

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EMERGENCY MEDICINE: physician for major suburban hospital. One of five full-time M.D.'s. New department. Hospital-based specialists in neonatology, pulmonary disease, pathology, cardiology, radiology and anesthesia. Full partnership after two years. Tax-sheltered annuity available and retirement provided. Existing four M.D.'s average age is 34. Joseph R. McCaslin, M.D., Director of Emergency Medicine, Archbishop Bergan Mercy Hospital, Omaha, Nb. 68124 (402)-398-6031.

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Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, exercise caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Use in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if in combination therapy with other psycho-

Libritabs® (chlordiazepoxide) available in 5 mg, 10 mg and 25 mg tablets.



tropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relation-

ship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



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THE ANXIETY-SPECIFIC

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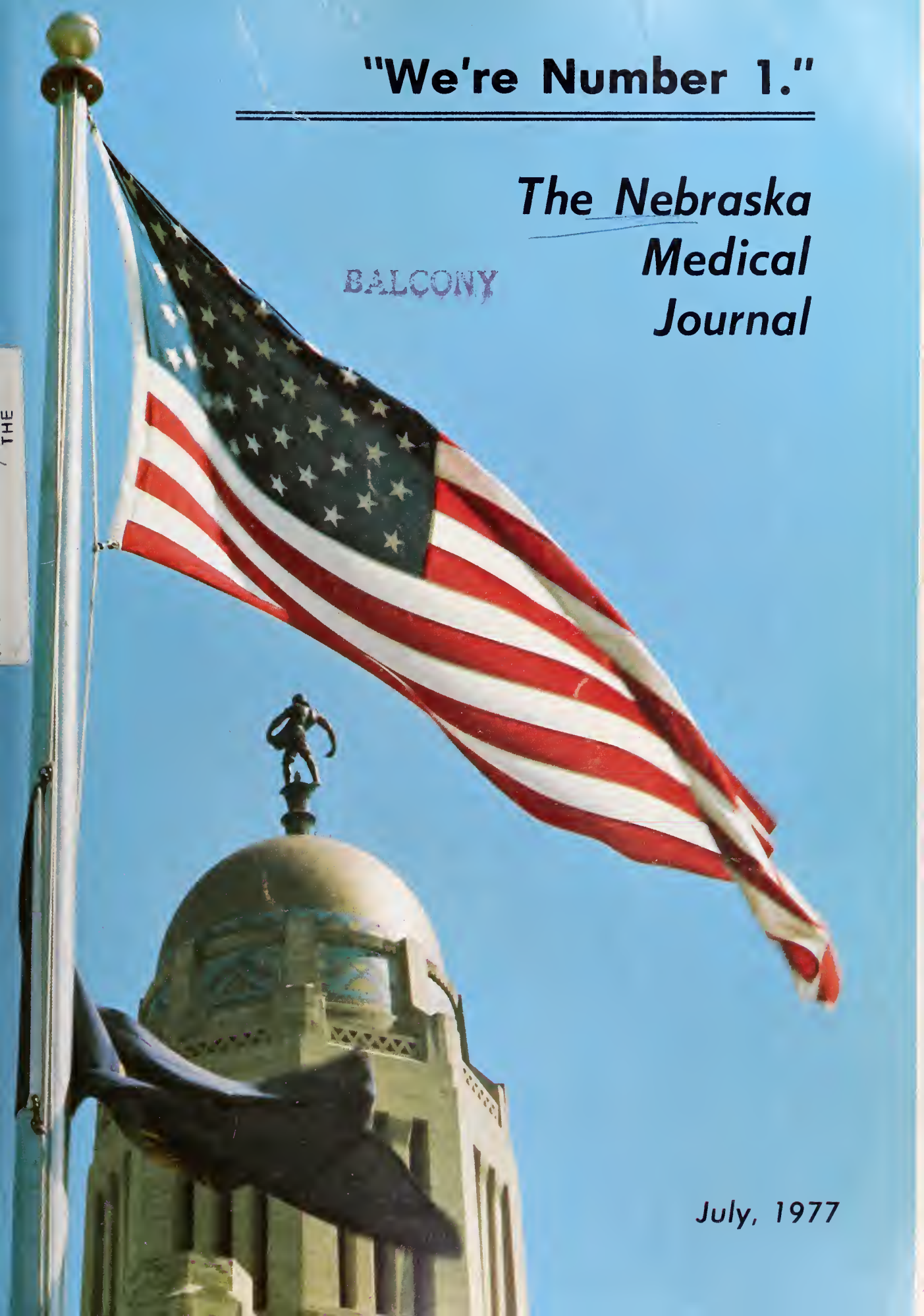


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*The Nebraska
Medical
Journal*

BALCONY

July, 1977



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tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.



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JULY 1977

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Renal Transplantation: 25-Year Experience

— J. E. Murray et al (Peter Bent Brigham Hosp, Boston, MA 02115) Ann Surg 184: 565-573 (Nov) 1976.

Boston surgeons performed the first successful isograft between identical twins (1954), the first successful allograft between fraternal twins (1959), and the first successful allograft from a cadaveric donor (1962). An immunosuppressive drug was also described in Boston by hematologists Schwartz and Dameschek (1959), modified for renal transplantation in dogs (1961), and used for the first time in a human recipient in March 1962. By 1965, renal transplantation had become a clinical reality. Three hundred ninety-eight of 589 recipients (68%) since 1950 are still alive, a remarkable figure considering that it includes all the earliest experimental transplants. One hundred ninety-five of 295 (68%) with living-related donor transplants still have functioning allografts; 104/265 (39%) with cadaveric donor transplants have functioning grafts currently. Since 1968, transplants from living-related donors have an 80% one-year survival whereas cadaveric donor transplants have approximately a 50% one-year survival. Seventy-nine percent of all one-year survivors have had excellent psycho-social rehabilitation.

Incidence of Exercise-Induced Asthma in Children

— I. Kawabori et al (C. W. Bierman, Dept of Pediatrics [RD-20], Univ of Washington School of Medicine, Seattle, WA 98105) J Allergy Clin Immunol 58: 447-455 (Oct) 1976.

The incidence of exercise-induced asthma (EIA) was studied in 134 asthmatic and 102 nonasthmatic atopic children and compared to 56 nonatopic children. Pulmonary function tests measuring forced vital capacity and FEV₁, were performed on each child prior to and serially for 20 minutes following free running exercise. The incidences of EIA among the asthmatic and atopic, nonasthmatic children were 63% and 41%, respectively. This phenomenon is widespread among allergic children and cannot be accurately predicted from the history. A simple and easily performed outpatient procedure is described for the diagnosis of EIA.

Cardiac Arrest Complicating Acute Myocardial Infarction: Predictability and Prognosis — M. J. Conley et al (R. A. Rosati, Duke Univ Medical Center, Durham, NC 27710) Am J Cardiol 39:7-12 (Jan) 1977

Eleven percent of 905 consecutive patients with acute myocardial infarction admitted to a coronary care unit experienced cardiac arrest. Cardiac arrest was experienced by 17% of patients with signs of heart failure on admission but by only 3% of patients without diabetes mellitus, prior myocardial infarction, or heart failure by history or on admission. Only 59% of patients with cardiac arrest survived hospitalization compared with 88% of those without arrest. Long-term survival for the 765 hospital survivors was significantly greater in the group without than in the group with arrest at each yearly interval from one through five years; the two-year survival rate was 50% and 77%, respectively, in these two groups. Many of the deaths among the hospital survivors occurred in patients with signs of heart failure during hospitalization. Among 668 hospital survivors who had mild or no heart failure during hospitalization, cardiac arrest continued to be a significant predictor of mortality. The mode of death among hospital survivors did not differ in the groups with and without cardiac arrest; for example, the incidence rate of sudden death in the two groups was 44% and 37%, respectively. Prophylactic use of antiarrhythmic agents may virtually eliminate ventricular fibrillation during the hospital phase of acute myocardial infarction and may substantially reduce both long-term and hospital mortality.

* * *

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Myocardial Infarction in Younger Women —
 F. G. Arthes and A. T. Masi (858 Madison,
 Memphis, TN 38163) Chest 70:574-583
 (Nov) 1976.

In a study of thromboembolism and oral contraceptive drugs, 136 cases of myocardial infarction in women aged 30 to 44 years were identified, a rare disease in women of this age group. Data from their hospital medical records were compared with those of several other groups, including women without chronic disease admitted electively or for various acute conditions unrelated to thromboembolism, patients with thromboembolic disease other than myocardial infarction, and women queried or examined in the National Health Survey. The following attributes were found to be associated with myocardial infarction in younger women: presence of diabetes; hypertension; history of increased cigarette smoking; and hypercholesterolemia. A history of the use of oral contraceptive drugs was found with greater frequency in cases than in controls.

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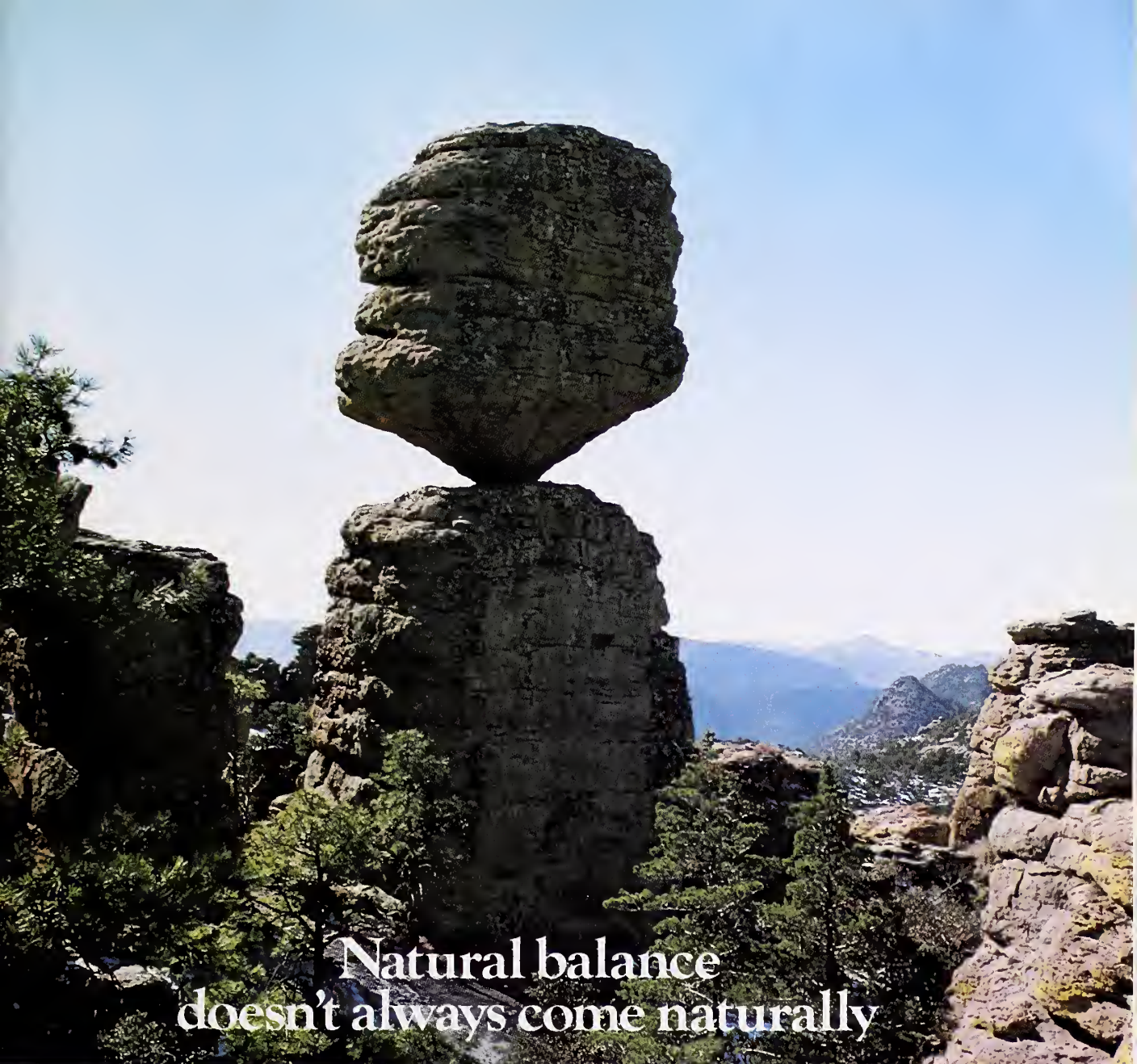
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Dosage for Vertigo*—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Use in Children. Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Use in Pregnancy. See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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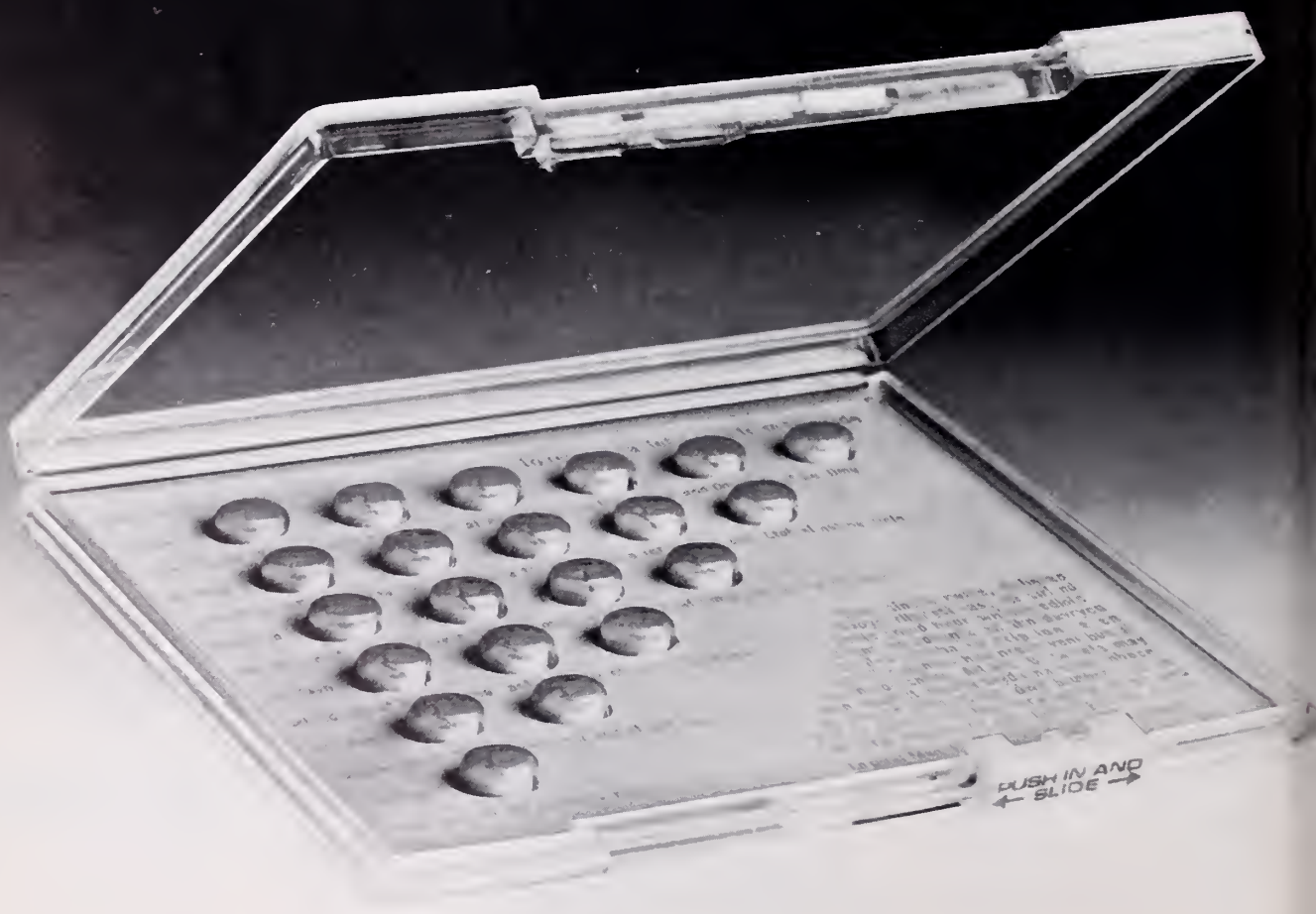
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Current Practice of Coronary Artery Bypass Surgery: Results of a National Survey — D. W. Miller, Jr, et al (Div of Cardiothoracic Surgery, Univ of Washington, Seattle, WA 98195) *J Thorac Cardiovasc Surg* 73:75-83 (Jan) 1977.

A survey of techniques used in coronary artery bypass graft (CABG) surgery by 400 experienced cardiac surgeons is presented. These surgeons performed 41,000 CABG operations in 1975. A 70-question survey form was answered by each surgeon on their techniques for cardiopulmonary bypass and myocardial preservation, choice of bypass conduit, and grafting techniques. Extracorporeal circulation is almost always used in CABG surgery. A wide divergence of practice exists in the use of left ventricular vents and in methods of myocardial protection during coronary artery grafting. A spectrum of graft suture techniques is employed, the most common being a running double-ended suture anastomosis with the end of the vein initially fixed only at its heel to the coronary artery. Only 23 surgeons (6%) prefer the internal mammary artery rather than saphenous vein, when feasible, as the bypass conduit of choice for CABG surgery.

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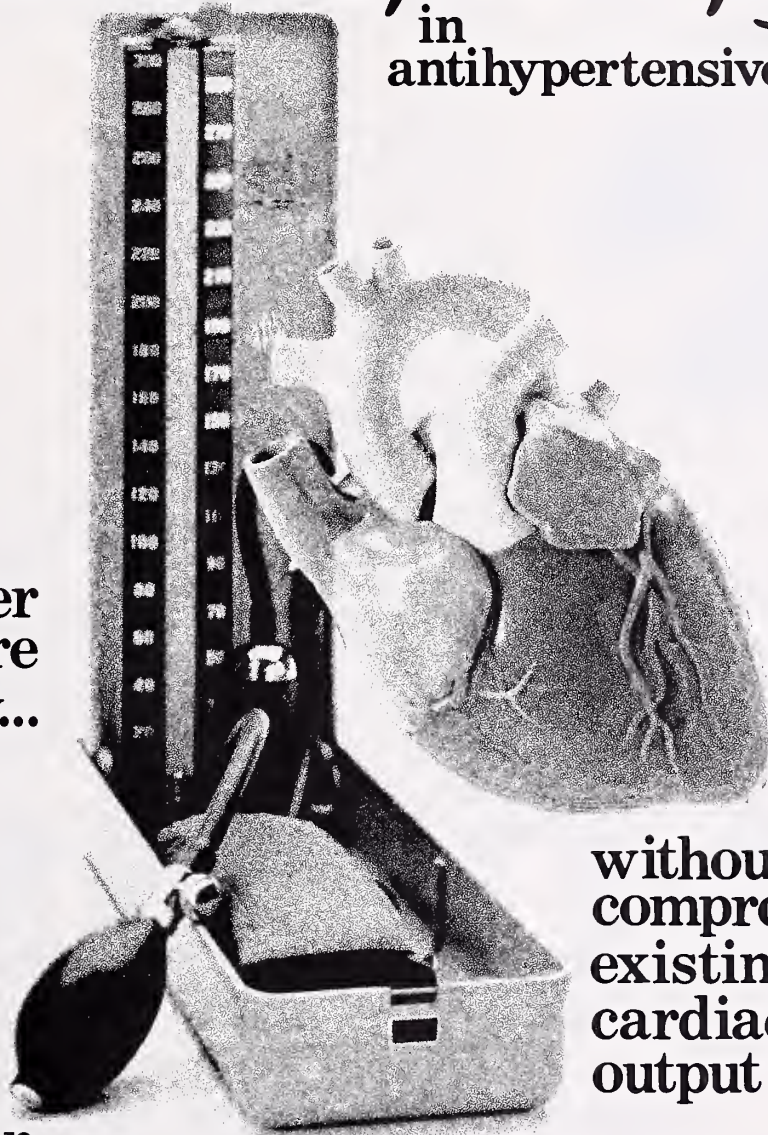
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Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or

cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Use in Pregnancy: Use of any drug in women who are or may become pregnant requires that anticipated benefits be weighed against possible risks; possibility of fetal injury can not be excluded.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia.

Allergic: Drug-related fever, myocarditis.

Other: Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third month of therapy; increased dosage or adding a thiazide frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

How Supplied: Tablets, containing 125 mg methyldopa each, in bottles of 100; Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486 J6AM07 (707)

Facial Asymmetry in Patients With Temporal Lobe Epilepsy: Clinical Sign Useful in Lateralization of Temporal Epileptogenic Foci — G. M. Remillard et al (3801 University St, Montreal, Quebec, Canada) *Neurology* 27:109-114 (Feb) 1977.

While clinical history is frequently sufficient for a localizing diagnosis of temporal lobe epilepsy, lateralization of the epileptogenic abnormality is often impossible on clinical grounds alone. Facial asymmetry was noted in 50 patients with temporal lobe epilepsy. In patients with unilateral foci, contralateral lower facial weakness of mild to severe degree was found in 73% while 13% had ipsilateral weakness and in 13% the face was symmetric. The facial weakness was usually more striking on emotional movement. In the group of patients with bi-temporal independent discharges, 61% had some facial asymmetry, often facial weakness on the side opposite the major focus. Of 25 control persons, only one third had facial asymmetry and this was slight. Facial asymmetry in temporal lobe epilepsy is a useful though not an absolute clinical lateralization sign.

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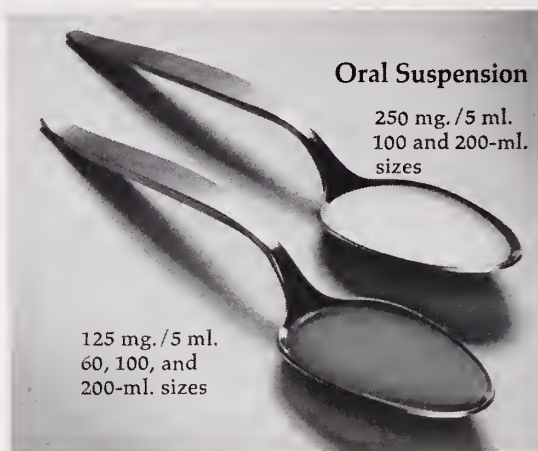
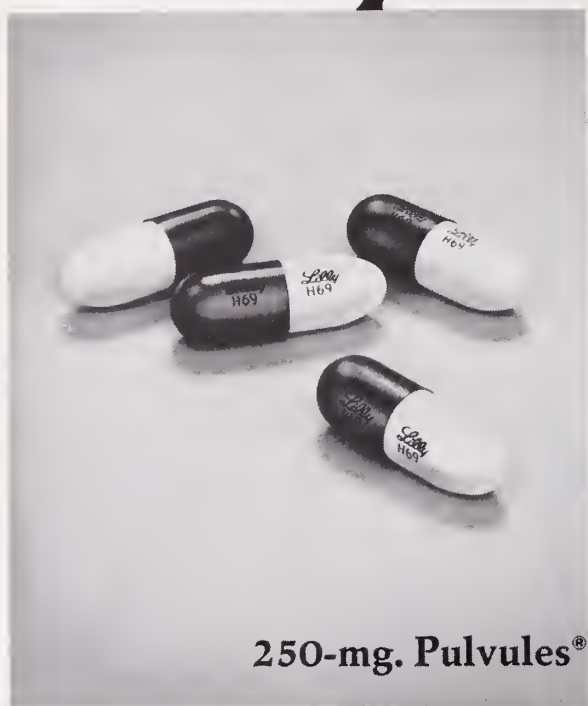
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THE NEBRASKA MEDICAL JOURNAL

WE'RE NUMBER ONE

A journal award program has been brought into being by Sandoz Pharmaceuticals; we just entered it, and *we came away with first prize*. This is for state medical journals with an under-3000 circulation; ours is about 1900.

That's all. I don't know how to say it any better. There will be a plaque and a check; I'll reproduce the heartwarming notification letter on another page in the Journal.

When you do something good, you crow. We're crowing.

It was a contest stretching across the whole United States.

We won first prize.

—F.C.

WHY THE SKY IS BLUE

Leonardo said the blue in the atmosphere is caused by the evaporation of heated moisture into tiny particles which the sun's rays attract and cause to seem luminous against the darkness of "the region of fire" that forms a covering among them.

Modern physicists attribute the blue of the sky to what is called the phenomenon of scatter.

But I think I know why the sky is blue. It is because we are looking at the air, at a sea of air, at a mountain of air, *and the color of air is blue*. If you solidify air, if you subject air to freezing and to pressure until it is solid, I think it looks blue.

We are not looking at solidified air when we look at the sky, but we are looking through miles of air, and so we become aware of the color of air when we look at the sky.

And that is why the sky is blue.

—F.C.

MOODS, RINGS, DISEASE, AND THINGS

In return for a small favor, someone gave me a mood ring, and I have once or twice slipped it on my little finger when I was all alone. It changes color, all right, and I attribute this to temperature. Now I may become feverish with emotional swings; I may behave coolly or be consumed with fiery anger; and as the youngsters say, when you're hot, you're hot.

If what I think is so, the rings change color as they become cool or warm, and I have a better use for them. For I may be taking my own temperature when I wear a mood ring, and we might ask patients to slip on mood rings when they come to the office, or we could even have them wear them at all times. We could then read their temperature when they enter the office, and they could even record it at home.

I think I once gave a ring to a girl, and the gold turned green; I think she did, too.

Of course, the psychiatrist could have the patient wear a mood ring or put one on in the office, but I see the day when we will all wear them and be walking temperature charts.

My, you're looking well, we might say, your ring is blue. Better than being told, you're pale, you must get out in the sun.

If we get socialized medicine, the government might make us all wear mood rings, and lock us up when they turn purple. Or we might ask our congressmen to wear them, and to vote no when the ring turns red, or come home when the light goes off.

—F.C.

THE POST OFFICE AND THE SUPERMARKET

The supermarket, once known as the grocery store, is a product of technology and the desires technology has brought about. I enjoy convenience foods, I can handle them, they are quick and easy. I like the frozen

shelves and the take-me-home goodies. I can whip up a chef-like tuna salad in minutes and I can come up with fresh caffeine-free coffee while the salad is making.

There is an aura of sterility that mimics the hospital, that I go for, too. The crackers are not in barrels any more, unwrapped penny candy is gone, the old soda fountain has disappeared, and an air of cleanliness has replaced the nostalgic aroma that fills our hearts with longing for what cannot be, and brings smiles to our faces as we remember. But for all this purity, *there is the grocery cart*. For in the cart, where my food will go, sit the neighborhood children. Sometimes they are in a little chamber in the back, where food also goes, and often they sit or stand in the larger main body of the cart. I cannot bring myself to pretend that they do not contaminate the food carrier; they sit where I will put my food, and render the cart unclean and not fit to contain food. It is convenient for mother and child, but it is unsanitary, and it is a practice that should be done away with.

The post office glues glue on the backs of stamps and then makes me lick the stamps to render the glue sticky. I find this unsanitary, and I ask the post office to find some other way to get stamps onto en-

velopes, or some way of showing that we have paid the stamp tax (I thought we had done away with *that*), without making me run my clean tongue over the government's not-so-clean stamps. Licking the envelope instead of the stamp does not solve the problem; I wonder if transparent adhesive tape is acceptable, and I wonder how much disease is spread by stamp licking, like glue sniffing.

Anyway, it's a dirty old practice, almost as bad as unclean children sitting where my food will go.

—F.C.

INFLATION AND MEDICINE

I was walking one way and they were going another, and as we passed, I heard them say *one forty over ninety*, and then, *everything is going up*. Snatches of conversation are intriguing and sometimes funny, and I especially liked this.

You inflate the cuff; maybe that's how it gets in.

—F.C.

Diabetes Mellitus — Approach to Diagnosis

PART I

1. Definition

Diabetes mellitus (Gr., diabetes = a syphon, from dia = through + banein = to go; meli = honey, or sweet) is a *frequent* disorder in the adult who consults a physician for a health problem or for a periodic health examination. It is a syndrome (Fig. 1) characterized by a generalized disturbance of metabolism and non-metabolic manifestations (vascular disease, neuropathy, retinopathy, altered response to infection, diverse obstetrical manifestations, and many others.) The genetic factor(s) is not understood; hence, a "genetic marker" which would be of help in diagnosis awaits future investigation. Increasingly, the non-metabolic manifestations are being linked to the metabolic defects.

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2. The Clinical Problem

Recognition and diagnosis is rarely a problem in those patients with overt or symptomatic diabetes mellitus. Public education has been so successful that the patient often recognizes and has established the presence of glycosuria before consulting a physician. The larger group, most asymptomatic adults, represents the area of challenge and controversy. In these patients, the

DIABETES MELLITUS SYNDROME (D.M.S.)

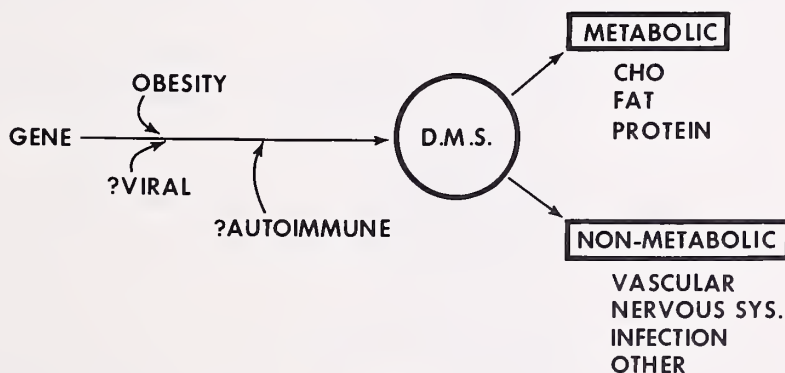


Figure 1

GLUCOSE TOLERANCE	STAGE OF DIABETES			
	PRE	SUB CLIN	CHEM	OVERT
	N	N or ↓	↓	↓↓↓

Figure 2

physician faces practical and philosophic questions, including:

A. Can a definitive diagnosis be established?

Yes, in most instances, if the physician evaluates the clinical features (Table 1), appreciates the natural history (Fig. 2) and critically assesses glucose tolerance (Section 6).

B. Is early diagnosis worthwhile?

This is an important question for each

physician. Early detection of any disorder is indicated if the patient will benefit from the subsequent therapeutic intervention at an acceptable cost. Some reasons which do and do not support early detection and treatment are listed in Table 2. This question remains complex because of inadequate knowledge of the pathogenetic sequence of the diabetic syndrome and because of the difficulty of effective treatment of a chronic disorder which involves a change of life style.

Table 1
WHEN TO SUSPECT DIABETES MELLITUS

History	Physical	Laboratory
Family history (> 20%)	Obesity	Plasma glucose
Large babies (> 9 lbs.)	Hypotension, orthostatic	Fasting >110 mg/dl
Pregnancy	Parotid swelling	2 hr. $\overline{pc}$ 120-140 mg/dl
Abortions	Eye:	Glycosuria with "normal" FBS
Toxemia	Acuity change	Glycosuria or hyperglycemia with
Hydramnios	Pupils	Stress
Stillbirths	Cataracts	Surgery
(large islets)	Retinopathy	Trauma
Congenital defects	Hepatomegaly	Stroke
Hypoglycemia	GU	Heart attack
Vascular disease	Nephrotic syndrome	Adrenal steroids
Pruritus	Infection	Hyperlipoproteinemia (lactescent serum)
Impotence	Renal failure	
	Bladder, sphincter disturbances	
	GI	Hypercholesteremia
	Diarrhea, nocturnal	
	Gastric retention	Hyperuricemia
	Malabsorption syndrome	Cholelithiasis
	Diverticulitis	
	Neuromyopathies	Charcot joints
	Peripheral	
	Cranial nerves	
	Autonomic (GU, GI)	
	A.L.S. ^a (80%)	
	Amyotrophy	
	Vascular disease (80%)	
	Cerebral	
	Coronary	
	Peripheral	
	Vulvo-vaginitis	
	Xanthomatosis	
	Dupuytren's	
	Skin (N.L.D. ^b , abscess, pre-tibial "spots")	
	Feet	
	Dental (peridontal disease)	

^a Amyotrophic lateral sclerosis

^b Necrobiosis lipoidica diabetorum

In practice, most physicians do make appropriate tests and do detect diabetes mellitus. Once a diagnosis of diabetes mellitus is definitive the physician has the responsibility of communicating this to the patient together with recommendations for treatment. At this stage *the attitude of the physician is crucial*. The oft heard comment, "Yes, you have diabetes, but it is not really a problem — all you need is diet," is hardly enough. The patient is disinclined to minimize — or even accept — the diagnosis. He may see a "second physician" for a "check-up" and not indicate the findings of the previous physician. At this time a repeat glucose tolerance test may be normal (Fig. 4, 5) because of diet change, weight loss, or the dynamic state of diabetes.

We provide the patient with a written copy of all findings (Problem List and a Flow Sheet with all laboratory findings, including glucose tolerance results) with the suggestion that he retain this in his health record. This is especially important because of the mobility of people in this country today.

C. What is the best diagnostic approach for my practice? Should it be the same for patients seen in the office and in the hospital?

The ambulatory or office setting is the optimal site for diagnostic tests since

criteria for glucose tolerance were established under these conditions. The essential point is for each physician — or groups of physicians — to establish a specific *written* approach which will be followed for patients both in the office and in the hospital. This should include a consideration of all factors relevant to the performance and interpretation of glucose tolerance tests (Section 6).

D. Should the initial approach be a screening test or a glucose tolerance test?

In practice most physicians use a "screening" approach. This is often done in a manner ("2 h $\overline{pc}$ sugar") which may be confusing, costly, and useless (unless conditions are standardized: knowledge of glucose or carbohydrate intake, timing of sample, testing in fasting state). There are specific, empirical rules which are as applicable to screening tests as for a glucose tolerance test (Section 6).

A 2 hour post glucose load is the most accepted approach. In those under age 50 a 2 hour *plasma* value of greater than 160 mg/dl will usually — but not always — be associated with a confirmatory glucose tolerance test. A one hour screening test is more sensitive but less specific than the 2 hour approach; at 1 hour a plasma glucose of greater than 185 mg/dl in those under age 50 is abnormal.

An abnormal screening test does not

Table 2
Early Diagnosis and Treatment of Diabetes Mellitus

Pro	Con
1. Prevention of acute episodes (ketoacidosis, hyperglycemic non-ketotic coma)	1. Weight reduction rarely achieved
2. Delay progression to overt diabetes	2. Course not altered?
3. Motivation for weight loss	3. Psychologic stress?
4. Decreased cataracts	4. Employment jeopardized?
5. Decreased rate of microangiopathy and neuropathy (probable)	5. Insurability affected
6. Decreased rate of atherogenesis (possible)	6. Treatment costly, manpower limited

establish a diagnosis. It indicates the desirability of a 3 hour glucose tolerance test, preferably at that time.

Clinical Example (Figure 3): This 25 year old nurse, whose father had diabetes, consulted a physician (4/15/68) primarily for a "check on diabetes" soon after marriage. She was 10 pounds in excess of her ideal weight and was taking an oral contraceptive. Blood glucose, two hours after a glucose load, was 228. She was told that she had diabetes

and diet and phenformin were pre-scribed.

She lost 10 pounds and 2 months later consulted a second physician because she was not convinced of the diagnosis. The phenformin was stopped and 2 weeks later (8/6/68) glucose tolerance was normal. Ten months later (6/10/69), after regaining 11 pounds, a second glucose tolerance test was normal. (Both tests showed a "flat" response; such peak glycemic responses of 20-30 mg/dl

DIABETES: DIAGNOSIS

B.L. 25y ♀ Nurse UF #12-26-44

FATHER = DIABETIC

DATE	WT	RX	BLOOD GLUCOSE						
			F	1/2	1	2	3	4	5
4/15/68	125	NORLESTRIN "DIET" DBI 50-TD				228			
4/24/68	—	↓	100			97			
7/15/68	—		92						
8/6/68	115	↓DBI "DIET "	82	97	90	84	95	72	75
6/10/69	126	REG. DIET NO OTHER RX	88	121	107	76	70	80	87

Figure 3

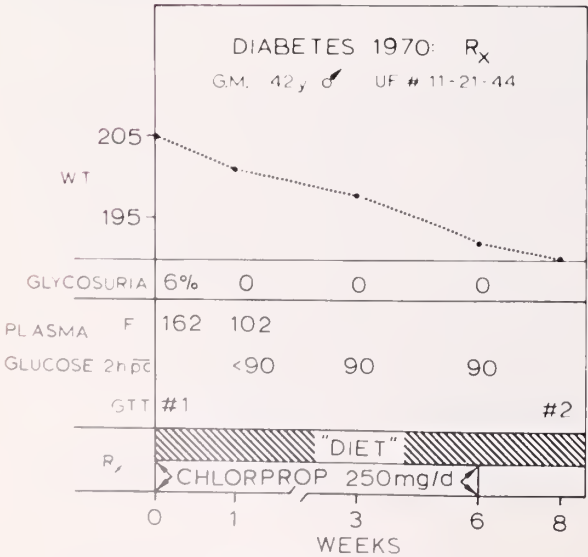


Figure 4

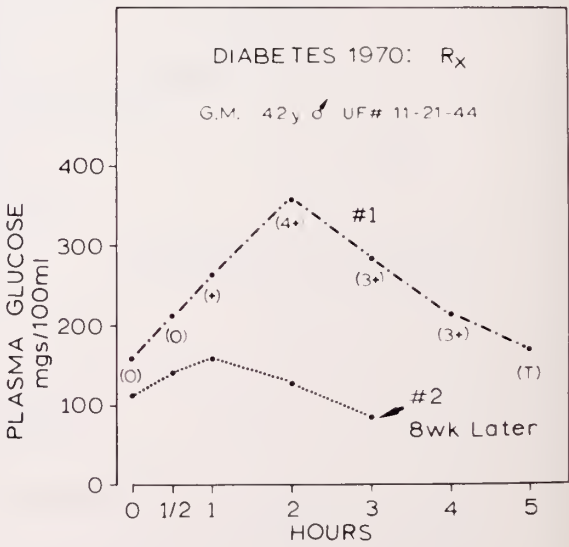


Figure 5

over fasting are frequent in normal individuals.) Thus, her question, "Do I have diabetes?" could not be answered.

This illustrates the desirability of a 3 hour glucose tolerance test either primarily for those in the high risk group (father with diabetes; see Table 1) or as an immediate follow up for an abnormal screening test.

E. Should the approach be different in the high risk group?

Yes, 25-50% of those patients with features shown in Table 1 will have glucose intolerance. Hence, a 3 hour multi-point test is indicated.

F. What is the natural history of glucose tolerance?

The dynamic state of glucose tolerance must be appreciated (Fig. 2). The large group of patients are in the subclinical or chemical groups. Pregnancy is one of nature's stress tests and all physicians recognize that glucose intolerance may appear during pregnancy; following delivery, glucose tolerance may, or may not be normal. Weight gain or loss and the stress of any acute illness may cause similar fluctuations.

G. What criteria should be used for the interpretation of glucose tolerance?

These are discussed in detail (Section 6) and the different criteria in current use are shown in Table 3. All of these are empirical as determined under standardized conditions. *Each physician should select one set of criteria, use them and become familiar with their usefulness and limitations.*

H. Does a properly performed, unequivocally diagnostic glucose tolerance test mean diabetes for life?

Yes. We emphasize again the dynamic state of glucose tolerance (Fig. 2). In most patients effective treatment will be associated with improved glucose tolerance. A repeat glucose tolerance test, though rarely indicated, may be normal.

Clinical Example (Fig. 4, 5): This 42 year old male presented with overt, non-ketotic, symptomatic diabetes. Fasting

hyperglycemia (162 mg/dl) and glycosuria were adequate for diagnosis. A glucose tolerance test (Fig. 5, #1) showed abnormal values at all times up to 5 hours. Timed urine samples showed glycosuria (results in parentheses) at 1 hour with blood glucose in excess of 210 mg/dl; on the down side of the curve trace glycosuria was detected at 5 hours with blood glucose under 200 mg/dl (normal renal threshold).

Treatment with diet and sulfonylurea was associated with weight loss and normal fasting and post-prandial glycemia. Eight weeks later (two weeks after stopping the sulfonylurea) a repeat glucose tolerance test was normal (Fig. 5, #2).

I. What is the diagnostic significance of other metabolic abnormalities (hyperlipoproteinemia) and physical findings (retinal microaneurysms)?

Diabetes is a generalized metabolic disorder which includes changes in lipid and protein as well as glucose metabolism. Clinically, it is useful to measure, in the *fasting state*, plasma triglycerides and cholesterol. These measurements alone will identify hyperlipoproteinemia (usually Type IV) associated with diabetes mellitus. Typically, one finds a plasma triglyceride concentration of greater than 200 mg/dl (serum or plasma lactescence indicates hypertriglyceridemia) and a plasma cholesterol concentration which is normal, or slightly increased. Lipoprotein electrophoretic typing is rarely needed.

Typical retinal microaneurysms are virtually diagnostic of diabetes mellitus. Furthermore, their presence probably indicates that diabetes is of long duration. Neuropathy and nephropathy, otherwise unexplained, may be the first clue which leads to a diagnosis of diabetes mellitus.

J. If the FBS (fasting blood sugar) is "normal," have I "gone far enough?"

No, if one wishes to detect diabetes at any early stage. Over 80% of the adult, asymptomatic group with glucose intolerance will have a "normal FBS" as defined by most laboratories.

3. Etiology and pathogenesis

The cause(s) and pathogenesis are incompletely understood. Genetic and environmental factors (viral infections, autoimmunity, obesity) are implicated in the pathogenesis (Fig. 1). Diabetes mellitus is (at least) a bihormonal disorder in which the

relative production and actions of insulin (decreased) and glucagon (increased) are altered. The classic studies of Unger and colleagues have shown that the overt diabetic state in experimental animals and man is regularly associated with relative hyperglucagonemia. These changes are often ex-

Table 3
Criteria for Diagnosis of Chemical Diabetes
by Oral Glucose Tolerance

	<u>Plasma Glucose (mg/dl)</u>	<u>Diagnostic Criteria</u>
Fajans & Conn ¹	1 h > 185	All three values abnormal
1.75 g/k	1½ h > 160	
	2 h > 140	
USPHS - Wilkerson ²	Fasting > 130 = 1 point	Two points or more
100 g.	1 h > 195 = ½ point	
	2 h > 140 = ½ point	
	3 h > 130 = 1 point	
O'Sullivan and Mahon ³	Fasting > 110	Two or more values abnormal
(for use in pregnancy)	1 h > 195	
100 g.	2 h > 175	
	3 h > 150	
ADA (American Diabetes Association) ⁴	Fasting > 115	Elevated fasting or all three post-test values abnormal
40 g/m ²	1 h > 185	
	1½ h > 165	
	2 h > 140	
Danowski: Glucose Tolerance Sum ⁵	<u>Venous Whole Blood</u>	Sum = fasting + 1 h + 2 h + 3 h
1.75 g/kg		Adults Children
		Normal < 450 < 450
		Borderline 450-700 450-700
		Diabetic > 700 > 650
Seltzer ⁶	<u>Capillary Whole Blood</u>	Elevated fasting
For Children	Fasting > 115	or 2 of 3 post-test
1.75 g/kg	1 h > 175	values abnormal
	2 h > 140	
	3 h > 125	

pressed as a reduced I/G ($\frac{\text{insulin}}{\text{glucagon}}$) ratio.

Somatostatin is a recently identified hormone which is of considerable current interest. It is a small polypeptide present in the central nervous system and the delta cells of the pancreatic islets. It is a potent inhibitor of glucagon (especially), insulin, and growth hormone. In appropriate amounts, by intravenous infusion, somatostatin will prevent the development of the ketotic state in

the insulin-dependent diabetic human in whom insulin has been withheld. The amelioration of the diabetic state has been ascribed to the observed reduction in circulating glucagon. It is reasonable to postulate a physiologic and perhaps key regulatory role for somatostatin because of its presence in the delta cells and the demonstrated specialized anatomic interfaces between the alpha (glucagon), beta (insulin), and delta (somatostatin) cells.

Medullary Carcinoma of the Thyroid: Report of a Case Associated With the "Ectopic" ACTH Syndrome

MEDULLARY carcinoma of the thyroid (MCT) is an unusual malignancy. The production of ACTH by this tumor is even more unusual. Approximately 15 cases have been reported. The following case report describes a patient with MCT, diarrhea and ectopic ACTH productivity, who has responded to a combination of surgery and radiotherapy.

Case Report:

The patient is a 51 year old white housewife who developed a neck mass in 1963. Biopsy revealed adenocarcinoma; the primary site could not be determined. She was treated with radiotherapy (4,077 rads to the neck and mediastinum). She was asymptomatic until September 1972 when a neck mass again appeared. She underwent a total thyroidectomy with limited neck dissection and excision of the parathyroids on the left. The pathology report was medullary carcinoma of the thyroid involving one lymph node on the posterior surface of the left lobe of the thyroid. Chest x-ray, serum calcium, and phosphorus were normal postoperatively, and she was maintained on 1 grain thyroid daily. There was no family history of endocrine adenomas or carcinomas. In April 1973, left neck nodules appeared, and a left radical neck dissection was done. Medullary

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carcinoma was present in 6 of 6 nodes. Chest x-ray was normal.

This patient did well until October 1975 when she presented to one of us (C.S.) with a history of diarrhea of 6 weeks duration. She was having 6 nonmelanotic stools daily without associated nausea, vomiting, abdominal pain, or significant weight loss. She was hospitalized. Physical examination was unremarkable aside from her surgical deformities. Chest x-ray now revealed hilar and mediastinal adenopathy. Barium enema, upper gastrointestinal and small bowel x-ray series, glucose tolerance test, lactose tolerance test, stool cultures, urinary 5-HIAA and VMA, sputum culture, serum T3, T4, T7, calcium, phosphorus, amylase, lipase, serum gastrin, and plasma cortisols were all normal or negative. Serum calcitonin level was 29 ng/ml (normal = undetectable levels). She received adriamycin 60 mg I.V. and cyclophosphamide 500 mg I.V. once every 28 days for two courses. The chest x-ray remained

stable, and on 2-24-76 the serum calcitonin was 69 ng/ml.

On 3/10/76 she was readmitted with hypokalemic alkalosis. The serum potassium remained around 2 mEq/l despite I.V. potassium. Plasma cortisol was 45 mcg/ml at 8:00 A.M. and 58 mcg/ml at 4:00 P.M. Urinary 17-ketosteroid excretion was 24 mg/24 hours (normal 5-10 mg/24 hours). Serum calcium, phosphorus and glucose remained normal. Chest x-ray showed further disease progression. Computerized axial tomography of the brain was normal. O'P'DDD did not ablate adrenal function, so on 4/5/76 bilateral adrenalectomy was done. Bilateral diffuse cortical hyperplasia was reported. Her electrolyte balance became and remained normal. Palliative radiation therapy to the mediastinum was given and she was started on adrenal steroid replacement therapy and maintained on L-thyroxine .2 mg daily. The patient continues to have mild diarrhea, controlled with antidiarrheal agents. A recent chest x-ray shows no progression of metastases and the patient is currently relatively asymptomatic.

Discussion:

Medullary carcinoma of the thyroid accounts for about 9% of all thyroid malignancies.¹⁵ It has a unique histologic picture: Polyhedral neoplastic cells arranged in sheets, separated by bands of fibrous stroma producing a monotonous organoid pattern. Amyloid is present in MCT and in no other thyroid malignancy. The course of MCT is variable; some patients survive only a few months after the diagnosis, others have a 20 or more year survival.³ Diarrhea and mediastinal involvement generally indicate a poor prognosis. MCT is a familial carcinoma in some cases, transmitted as an autosomal dominant trait, and known as Sipples syndrome or multiple endocrine adenopathy (MEA-2), when associated with parathyroid hyperplasia or adenoma and pheochromocytoma. Most cases of MCT, however, (80-85%) are sporadic.

Approximately one third of patients with MCT develop diarrhea.⁷ This may be the presenting symptom, with the appearance of a thyroid mass occurring years later. The pathogenesis of the diarrhea is not under-

stood, but many of the humoral substances known to be produced by MCT have been implicated — calcitonin,⁸ serotonin,⁷ histaminase,⁹ prostaglandins¹⁰ and kallikrein.¹⁰ A disturbance of ileal intestinal function⁴ manifested by disorders of ileal electrolyte transport, permeability and motility may also be an etiologic factor in the diarrhea.

Elevated serum calcitonin levels are a reliable chemical marker of MCT.^{17, 18} Patients may have normal or elevated calcitonin levels, but calcium infusion results in elevated serum calcitonin levels in nearly all patients.¹⁷ Elevated histamine levels occur only if the disease has escaped from the thyroid and such measurements may be useful in detecting metastatic disease.¹⁵

MCT has occasionally shown the capacity for "ectopic" adrenocorticotrophic hormone (ACTH) production; at least 15 cases have been describe.^{11, 14} Two types of endocrine cells may be present in MCT and its metastases, as demonstrated by electron microscopy and immuno fluorescence.¹ One cell resembles the calcitonin producing thyroid C cell and the other resembles the pituitary ACTH cell. Radioimmunoassay techniques have demonstrated the production of calcitonin and ACTH by MCT.² Embryologically both cells have a common neural crest origin and are members of the APUD cell system.^{6, 13, 19} Thus ACTH production by MCT may not be ectopic, since the ectopic hormone syndrome in this instance refers to the production by an endocrine organ tumor of a hormone not associated with that organ.

Patients with ectopic ACTH syndrome do not present with classic Cushing's syndrome, because a long period of excess cortisol production is usually required to produce the symptoms, and ectopic ACTH syndrome is discovered quickly as a rule in association with an advancing malignancy. Hallmarks of ectopic ACTH include hypokalemia, abnormal glucose tolerance, marked weakness and/or increased pigmentation. Diagnosis in this patient was confirmed by high concentrations of plasma cortisols in association with a high plasma ACTH level.

Primary treatment for MCT is total thyroidectomy and removal of regional node

metastases.³ Radioactive iodine does not concentrate in these tumors and has no role in their treatment. External radiation may be used for residual disease. Suppressing doses of thyroid hormone are not effective since this tumor is not under TSH control.¹⁶

Ortho para DDD (O', P'DDD) was used in this patient in an effort to ablate adrenal function. The drug is useful in management of adrenal cortical carcinoma because it acts directly on the adrenals, suppressing steroid production.⁵ The exact mode of action is not understood. Histologically the drug causes extensive destruction and fibrosis of adrenal cortical cells. 72 percent of patients treated show a greater than 50% reduction in urinary corticosteroid related hormone excretion, with a duration of ½ - 14 months.

Adriamycin has been useful in management of metastatic thyroid carcinoma, with a remission rate of 37%.¹² Remissions have been seen in all histologic types, including MCT.

Summary:

A case of medullary carcinoma of the thyroid associated with ACTH production and diarrhea is reported in a patient who had radiotherapy to her neck 9 years earlier. Management of ACTH excess required adrenalectomy and metastatic disease was treated with chemotherapy and radiotherapy. Management of this complex carcinoma is discussed.

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Computer Computation of Complex Time-Dose and Modality Relationships in Radiation Therapy

Part I

THE past 50 years of radiation therapy practice has been characterized by numerous variations in the time over which a course of therapy is given, the number of fractions involved, the dose per fraction and the total dose. In general, the usual and most effective pattern of external radiation therapy is to deliver about 1000 rads per week divided into five fractions for a total of five to seven weeks. The quality of any other program should be related to this standard. However, it is very difficult to relate a different schedule to a standard because of the complex nature of biological response. It is also difficult to relate doses of interstitial or intracavitary therapy to doses of external radiation.

One apparently rational method to equate the variables of dose and time was that of Frank Ellis with his NSD formula.^{1, 2, 3} The NSD (nominal standard dose) is designed to give the proper dose of irradiation for a given number of fractions in a given time to cause a certain biologic effect (tolerance) on normal connective tissue.⁴

$$\text{NSD} = (\text{Total Dose}) N^{-0.24} T^{-0.11}$$

Total dose in rads

N = The number of fractions

T = Total treatment time in days

NSD represents normal connective tissue tolerance which defines the practical upper limit of radiation dose. Because some tumors are radioresistant to the conventional schedules of therapy, the formula should predict alternative schedules which would cause an equivalent biological effect on the connective tissues.

Cell survival curves of radioresistant cancer cells have high extrapolation numbers. With certain dose fractions, most biological

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systems show a kill pattern that results in a straight line when kill is plotted on a log scale against dose on a linear scale. The initial portion of the curve has a hump. When the straight portion of the line is extrapolated back to the log axis bypassing the hump the number intersected on the axis is termed the extrapolation number. Its magnitude is related to the width of the hump. This discrepancy between the projection of the straight line and the initial hump can be interpreted by the hypothesis that radioresistant tumors have a large number of "targets" in each cell, each of which must be "hit" by the dose of radiation, to kill one cell. Once sufficient radiation hits the cells to cause log kill, the straight portion of the curve becomes evident. In order to hit many targets, the dose per fraction must be larger, but less frequent than would be required to kill a cell with only a few targets. In order to keep the total dose within tolerance limits, the dose fraction if larger must be less frequent. An example of this concept⁴ shows that in the vanPutten osteosarcoma 31 doses of 200 rads resulted in a cell survival of about 0.17×10^{-1} while the biological equivalent of three doses of 1200 rads (each schedule has an NSD of 1800) yielded a cell survival of 0.94×10^{-10} . In other words, the conventional schedule allowed for a survival of about 0.02 while the high fraction three dose schedule allowed a survival of only 0.000,000,000,1, a factor of two hundred million.

We have developed a system of computer-

ized calculations of subtolerance radiation effect which allows inner comparison of different modes of therapy. A uniform scale has been created upon which we can assess and interrelate doses from radium, radon, and external beam therapy, as well as cumulative results from combinations of these methods. Doses can also be correlated and corrected for time gaps of varying amounts.

The biomathematical basis of this project is the CRE or Cumulative Radiation Effect as described by Kirk, Gray, and Watson in a series of publications.^{5,6,7,8,9} These formulas are a generalization of the NSD formula of Ellis, which is defined only for tissue tolerance. The articles represent a monumental work covering a publishing period of 1971-1975.

This series of papers is briefly reviewed to show the versatility and complexity of the concepts and to demonstrate the basis of the computer program. The first portion of this work by Kirk, Gray, and Watson⁵ (Part I of their series of papers) analyzes fractional radiation treatment regimes. The authors attempt to establish a basic criterion for comparing the biological effects of widely varied fractionated courses of radiation therapy. The assessments are based on the accumulated sub-tolerance radiation effect. The accumulated sub-tolerance radiation effect is designated by the authors as CRE (Cumulative Radiation Effect). The CRE in various specific uses is designated by: R_c, R_x, R_f, R_g , and R_a .

Kirk, Gray, and Watson wanted to expand the work of Ellis by analyzing all pertinent clinical data and making a formulation that could be verified clinically. They hypothesized that Ellis' formula could be applied to any radiation effect on normal tissue up to and including connective tissue tolerance.

The expression for the CRE is written:

$$R_f = D N^{-0.24} T^{-0.11}$$

R_f = Cumulative Radiation Effect (CRE) for normal tissue in fractionated treatments

D = Total dose of radiation

N = Number of fractions

T = Total time of treatments

or written by defining

$d = \frac{D}{N}$ as the dose per fraction, and

$X = \frac{T}{N}$ as the ratio of total time to the number of fractions

$$R_f = d N N^{-0.24} X^{-0.11} N^{-0.11}$$

$$R_f = X^{-0.11} d N^{.65}$$

These formulas demonstrate that radiation effect is related to (1) daily doses (R_f is proportional to d), (2) time between treatments (R_f is proportional to X) (allows for biological recovery), and (3) total number of treatments (R_f is proportional to N).

The authors show the formulation can be extended to include regimes of more than one schedule by integration ("Schedule" — repetitive application of fractions of equal doses of equal time intervals over a specified treatment time. "Regime" — a systematic course of radiotherapy comprising one or more schedules). The CRE allows comparison of various regimes of treatment by providing a scale of radiation effect. An important benefit is to allow evaluation of the quantity of radiation effect resulting from multiple fractions of therapy.

In Part II⁶ of the series of articles by Kirk, Gray, and Watson, an analysis is made of the effect of continuous radiation therapy using long-lived sources. An attempt is made to express an equivalent scale of effect in normal connective tissue. Long-lived sources refers to those with a half-life very long compared with the treatment time (e.g. radium). An equation for CRE is developed (R_c = radiation effect of normal connective tissue with continuous radiation):

$$R_c = kqrT^{.71}$$

T = total time over which the irradiation is given

q = a parameter describing the relative biological effectiveness of the irradiation (RBE)

r = dose rate

k = .53 a constant relating the effect of continuous to fractionated therapy based on tolerance data

It is possible to calculate a correction factor to be applied to actual interstitial implants in which the dose-rate differs from that intended in the original plan.

A study of effect on normal connective tissue by continuous radiation therapy from short-lived⁷ sources is presented (Part III of the work of Kirk, Gray and Watson). In this situation the dose rate changes appreciably during the course of the therapy.

$$\frac{dR_c}{dt} = zK^{1/z} q^{1/z} r(t)^{1/z} = R_c^{1-(1/z)}$$

L = Half life

K = Normalizing constant

q = Relative biologic effectiveness

r = Dose rate

z = 0.71

t = time

For permanently implanted sources the relationship becomes

$$R_c = Kqr_o \left[\frac{zL}{.693} \right]^z$$

Health Education: Potentials for Patient Care

THE term Health Education has two meanings: 1) training medical personnel and 2) educating the public about health. These different meanings cause considerable confusion in any discussion of this topic. Health education referring to education of the public about health first gained wide acceptance with the publication of the text *Health Education* by a joint committee of the American Medical Association in the National Education Association in 1924.¹ Health education referring to education of medical personnel about medical matters is largely a result of the 1970 publication of the Carnegie Commission on Higher Education report,² proposing regional centers for continuing medical education called area health education centers.

We will here define and describe health education as educating the public about health, review its varied forms, and suggest benefits from improved health education programs for patients in medical care settings.

The Objective of Health Education

Health education is defined as any planned educational intervention involving individuals or a community and producing a health enhancing behavior. Health educators develop programs to modify harmful health

behaviors and introduce and reinforce healthful behaviors. The long range objective is to develop, in people, a sense of personal responsibility for their own individual and community health. This means helping people learn how to make sound decisions about their own health. Health education assists in bridging the gap between medical knowledge and individual behavior.

Recently a task force of the National Conference of Preventive Medicine³ developed a more definite set of objectives including under the heading of health education activities which 1) inform people about health, illness, disability, and ways in which they can improve and protect their own health, including more efficient use of the delivery system; 2) motivate people to want to change to more healthful practices; 3) help them to learn the necessary skills to adopt and maintain healthful practices and lifestyles; 4) help other health professionals to acquire these teaching skills; 5) advocate

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changes in the environment that facilitate healthful conditions and healthful behavior; and 6) add to knowledge via research and evaluation concerning the most effective way of achieving the above objectives.

Inherent in definitions like these is the distinction between information and education. Simply providing information either to individuals or via mass media is not education. Only to the extent that information is part of a package of data designed to motivate, modify, or reinforce a health appreciating-behavior do we have health education. The obese individual who has gathered much information about the risks of obesity but has not changed his own behavior to reduce these risks cannot be considered health-educated with regard to obesity.

Behavior and the Health-Disease Continuum

In thinking about the applications of health education, it is useful to consider the range of behaviors that are related to health. The following three examples represent arbitrary points on a continuum ranging from illness to optimal health, and suggest the need for alternative health education strategies to focus on different health behaviors.

Health directed behavior is exhibited by people who believe themselves healthy, and is carried out in an attempt to stay healthy. For example, a person who recognizes that he is in good health and maintains a sensible diet and exercise program despite social pressures is exhibiting a health directed behavior. Conversely, the individual who considers himself healthy but continues a health depreciating behavior such as over-eating or under-exercising in the belief that it will have no impact on his state of health is also exhibiting a type of health behavior, but one which is not in accordance with the prevailing consensus of medical opinion.

Both individuals feel that they are acting in a way that will not deter their present state of health. Both, it can be argued, are involved in health maintenance, although one's behavior is more in accordance with medical knowledge than the other.

Here the distinction between health directed behavior and health related behavior

becomes clear. Practically all behavior has some relationship to health but only a relatively small subset of behavior is health directed as described above.

Illness behavior is exhibited by people who feel they are not well and wish to define their state of ill health and discover suitable remedies. This type of behavior is illustrated in the dynamics of the basic decisions involved in seeking medical help and determining what type of help to seek. In each case, the behavior is motivated by a perceived illness state, a desire to determine the exact nature of the illness, and a need to reconcile the associated uncertainties. Delaying the seeking of medical care is the most conspicuous example of a health depreciating behavior potentially alterable by health education.

A third category of behavior of interest to the health educator is *sick-role behavior*. Sick-role behavior describes activities performed by people diagnosed as sick expressly for the purposes of getting well. Examples of this category of behavior can be found in patient compliance with the taking of prescribed medications or the following of specific treatment regimens. Here the concern is to find ways to improve such problems as poor compliance in following medication regimens or missed follow-up appointments. Is it possible that better understanding of the nature of the treatment would improve treatment compliance?

Each of these points illustrates the need for different approaches in educating the public about health problems. Interesting the healthy individual in changing his diet because of the threat of possible illness is quite different from convincing the newly diagnosed hypertensive to take medications, which in turn differs from the problem of maintaining the hypertensive patient's treatment compliance after he feels well again.

Communities of Attention

The scope of health education is broad and for discussion purposes can be viewed in two ways. First, the range of locations in which health education activities are found can be considered. Most typical are the schools, the hospitals, and clinics, and other social agencies in the community. Second, health educa-

tion can be viewed in terms of primary, secondary, and tertiary prevention. Education related to primary preventive actions includes such basics as personal hygiene, the necessity for immunizations, and community actions such as the fluoridation of water. Secondary prevention involves behavior related to the diagnosis and treatment of illnesses, while tertiary prevention refers to the rehabilitative actions following a particular treatment regimen.

The nature of primary, secondary, and tertiary prevention education is typically related to the location of the health education activities — school, community, hospital, etc. For example, school health education focuses mainly on primary prevention and health maintenance behavior, while hospital-based patient education focuses on assisting someone to abandon the sick role and regain health.

School health education is basically didactic and involves transmitting information that will serve as the basis for sound health habits for young people as they develop. Physicians can be a significant help to teachers involved in health education. More than any other community member the physician knows the value of health and the need for health maintenance and preventive medicine, and thus is in a unique position to encourage improved school health education, provide information and advice for health teachers, and perhaps visit the classroom as an expert resource. Although the school provides an excellent opportunity for education in the area of health, in terms of readiness young people are the least concerned about health-related matters, principally because they are as healthy and as free from disease as they will ever be.

One significant attempt to overcome the shortcomings of past school health education programs is the approach developed under the title Berkeley Project or the School Health Education Curriculum Project,⁴ and designed to combine community and school resources in a meaningful educational program about health. Evaluation results suggest that this approach is effective in increasing knowledge but more importantly encouraging behavior changes conducive to

health. The University of Nebraska-Lincoln is incorporating much of the theory and practices of this approach into its programs to train school health teachers.

Community health education, on the other hand, often involves public information and public education. Information, operationally defined as the transmission of data, differs from education, which aims at convincing people to act upon information. Community health education often works through government and social groups in an attempt to improve the quality of life in a community. Perhaps the most interesting recent community health education effort involving political and social action in Nebraska is in the area of fluoridation. In many cases communities have elected not to fluoridate their water despite the scientific evidence in support of such an action. In these communities it is fair to say that the information was transmitted but that health education was not successful because the desired health behavior (in this case voting for fluoridation) was not achieved.

Physicians are also often consulted regarding community health problems. The advice of a physician does not guarantee the community will follow it. It is important to remember that few members of the community see the problem as the physician does. A physician's involvement may even create opposition to the desired programs.

Patient health education, an area of great visibility and some real evidence of impact, deals with educational interventions related to illness and sick role behavior. Educational opportunities to improve the utilization of services and effectiveness of treatment are significant but essentially untested. If patient health education can prevent the early onset of disease, or improve the rate of compliance with medical regimens, it is reasonably safe to predict that the cost of such programs would be paid for many times over. The control of hypertension through medication is a clear example of an available technology which could be more effective if coupled with effective patient education programs to overcome noncompliant behavior. We have been singularly unsuccessful in modifying diets, exercise routines, and lifestyles among

known hypertensives. Well planned educational interventions remain essentially untested.

When existing solutions to known medical problems are under-utilized because of inability to communicate with and educate the patient, it is worth remembering that the word doctor as originally used in middle English and adapted from the Latin *doc-torem* meant "teacher."

Patient Education and Potential Pay Offs

We can speculate on the usefulness of health education but as yet the data are insufficient to make broad generalizations concerning cost effectiveness or cost benefit. On the basis of present theory and small amounts of available data, a potential for significant and measurable contributions does seem to exist. The following suggested benefits result specifically from patient education in health care settings.

Improved Diagnosis

Numerous sources have cited the breakdown in communications between patient and physician. Of the many reasons suggested to account for this, one of the most likely is the fact that, compared to the physician, the patient has little knowledge of his own body and its functions and even less of how the physician goes about dealing with medical problems. One immediate short term medical benefit resulting from a better health educated patient would be an improvement of communication: a patient better able to explain symptoms and to answer the physician's questions and better able to understand the relevance of the physician's directives.

Reduced Delay

Greater knowledge about health and available health services on the part of the patient, while still in a healthy state, can reduce delay when the need for medical services arises. Knowledge about the proper functioning of body and mind, the value of early detection, the diagnostic process, and such matters as health insurance and medical specialties, would all contribute to easing that initial, often difficult decision, to "see a physician." This knowledge does not imply

more or fewer patients, rather, it implies a more informed decision on when to seek care.

Treatment Compliance

Perhaps the most easily evaluated result of patient education is compliance with medical regimens. Numerous studies have pointed out that the rate of compliance with medical regimens, often after extensive and expensive diagnostic procedures, is dismally poor. If patients better understood what was involved in the diagnostic process, the nature of their disease, and the importance of following treatment instructions, even after they begin to feel well, we could expect greater compliance.

Health Maintenance

More difficult to define and measure is the possibility that improved understanding resulting from better health educated patients will result in improved primary prevention and better health behavior aimed simply at health maintenance.

Administrative Considerations

Patient education programs will inevitably result in improved patient-doctor relations which will consequently reduce such problems as broken appointments and unpaid bills. An informed, well-satisfied patient rarely delays paying his bill whereas an individual who is unhappy, confused, and feels uninformed about the nature of the medical treatment and the basis of its cost may feel justified in doing so.

Malpractice

Lastly, and perhaps least in terms of absolute numbers but possibly greatest in economic magnitude, is the potential reduction in malpractice suits. Health education, if successful, will make the patient sensible of the realistic potentials, including the payoffs and the risks, of medical care. A well-informed understanding of a particular treatment is bound to reduce the possibility of malpractice suits resulting from unexpected results following the treatment. To this end, patient education should address the disparity which exists between the patient's expectations of the power of medical technology, often painted as limitless in the news and popular media, and the actualities of the

art and science of medical practice in the average community.

Recent surveys confirm that patients are unhappy and dissatisfied with the information they receive from their physicians, more so than any other aspect of their medical care.⁵ Such a reaction on the part of patients contrasts starkly with the report of physicians that health education is their third most frequent clinical activity in office practice.⁶ Something seems to be missing if patients continue to be dissatisfied and physicians continue to say that they are delivering a significant amount of health education.

Health Education: A Simple Idea With Probable Benefits

No matter how sophisticated medical training and services become, they are essentially of no value unless first accessible to the public and then correctly utilized. The individual remains the critical element in the prevention of disease and in the success of the treatment. Organized health education is an often confused concept and a long-overlooked resource. Admittedly, education takes place in all contacts with the health care system, but without specific objectives and projected outcome, results are negligible. Health education should be an integral part of services provided by any complete health/medical delivery system. If the delivery of good medicine and health maintenance depends upon a team approach, health education aimed at behavior more conducive to health should be a part of that team's techniques. What we argue is not necessarily the addition of people to the patient contact team, but rather new techniques for the team to use; not the raising of

the public's expectations, but the establishment of more realistic and informed expectations; not a violation of the patient-doctor relationship, but the opportunity to establish a more effective relationship.

Health education is not a proven panacea, in fact, quality data supporting its effectiveness are only now accumulating in significant quantities. The potential for health education is significant, however, and the range of well-derived and apparently useful ideas and concepts enormous. Cooperative efforts to implement and test these concepts hold one of the best hopes to improve the effectiveness of medical care, to heighten the public's understanding of medicine and health and develop new levels of satisfaction for both providers and the consumers.

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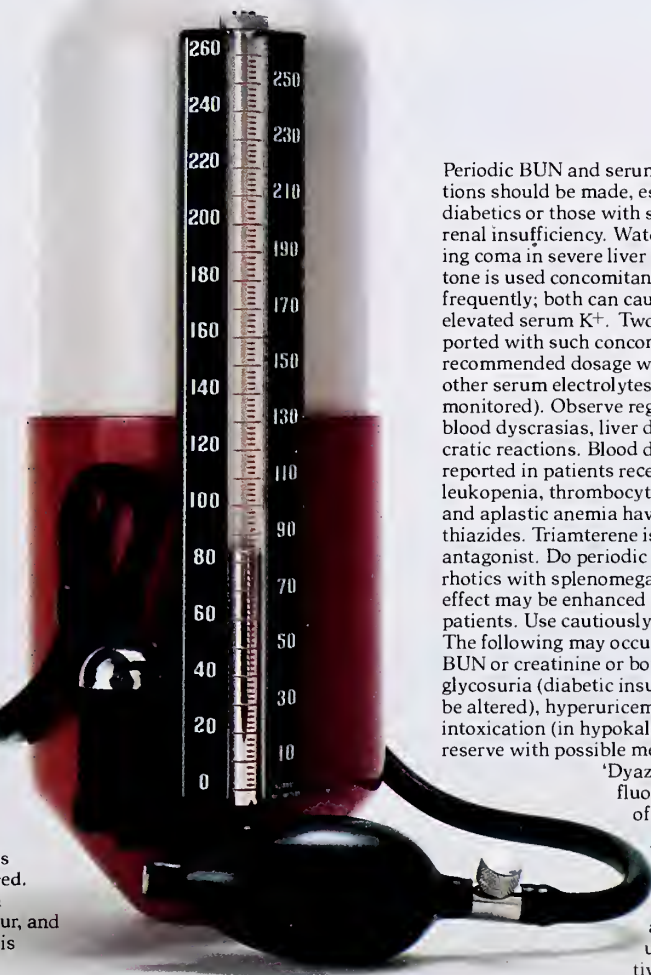
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Precautions: Use cautiously in patients with impaired renal function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin rashes, epidermal necrolysis, urticaria, serum sickness,

pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

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Down Memory Lane

1. In the preliminary report of the Commission on Education of January, 1927, the problem of Specialization of Physicians is presented. In this chapter we are informed that 10.5 per cent of the profession are practicing a specialty. It is assumed, however, that this calculation does not include internal medicine as a specialty.

2. The typical doctor of 1927 is a smooth shaven optimistic looking individual.

3. Because of his training, the dentist has confined himself too much to mechanical procedures and has taken too little interest in the general health. On the other hand, physicians have attached too little attention to the teeth.

4. Due to the restrictions placed upon the sale of fireworks during the past few years, the number of intraocular injuries from this cause has been greatly reduced.

5. As in previous years, scarlet fever, measles, whooping cough, chickenpox and smallpox are those most frequently reported.

6. The average age of practitioners in rural districts is 52 years.

7. The first American soldier killed in the World War by the enemy, was a physician.

8. A substitute for the clinics, visiting nurses and hospital wards of the cities may be necessary to provide for the needs of the poor and the ne'er-do-wells of rural district. And this harks back to the bug-a-boo of State Medicine.

9. The question of medicinal liquors will not keep down. The lay press, however, gave the impression that the House of Delegates discussed nothing else.

10. When pulmonary embolism occurs the dangerous period is the first few minutes and if the patients can survive the first ten minutes they survive oftener than not, provided that secondary pneumonia does not intervene and even if it does, more get well than die.

Nebraska State Medical Journal
July, 1927

President's Page

Freedom of Choice

Some simple issues become complicated and seem to grow instead of going away. The simple yes or no, black or white issue becomes like a rainbow with its many colors. Such a problem is facing the medical profession today and refuses to go away because of its many facets. Many talented medical hours and great amount of money is being spent pro and con defending the various positions on this simple problem. All because the issue is not kept a simple yes or no to a scientific question but clouded by emotional and political overtures.

This issue is the patients right to choose the treatment of cancer as proposed by the freedom of choice people. I'll not argue if you want to go to a barber who gives you a poor haircut because the only difference between a good haircut and a bad haircut is a weeks growth. I'm talking about laetrile in the use of the treatment of cancer. Its use is all muddled up in the emotional, political and scientific arena like a three ring circus. Valuable time is lost by people depending on its ineffectiveness in a life threatening matter.

Scientifically, there is no question of whether it is right or wrong to use laetrile. In the many years of its experimental use to cure cancer only one report favored it at all and that was by a man now 84 years of age. After five years he nor anyone else can duplicate the original findings. Scientifically it is not an effective prevention, palliation or cure for cancer.

Sure, it does no harm, is safe, but the rip-off price people pay for this placebo is outrageous. There are twenty-five or more medicines that are scientifically effective in selected cases of cancer so why not choose one of them or a combination of them that are now advocated? I'll tell you why, there is not the mystic and intrigue surrounding them.

Don't get embroiled in the political issue of the "right to choose." The emotional issue of



persons dying with cancer can be twisted by clever activists and politicians to make you feel like a hypocrite instead of a disciple of Hippocrates who vows to keep fraud and chicanery out of medicine. There have been political decisions made in Alaska, Indiana, and Florida favoring laetrile but that should not cloud your scientific mind.

The proponents of Laetrile will cite case after case that was benefited by laetrile, but testimonial cures are reminiscent of the old snake-oil and travelling tent show days. They will say it is B17 but what is B17? They theorize that Laetrile breaks down to a cyanide radical that attacks the cancer cell and leaves the normal cell alone, when in fact it is immediately excreted in the urine without doing anything.

So doctors, don't lose your scientific head, stick to the advice of the American Medical Association, American Cancer Society, Food and Drug Administration and your own common sense in the use of unproven cancer drugs. Avoid the laetrile trap. Leave the apricot pits to grow more apricots and not to fatten your pocketbook.

Arnold W. Lempka, M.D.
President, Nebraska Medical Association



The Auxiliary

ANNUAL REPORT OF THE PRESIDENT AND PRESIDENT-ELECT

During this year membership became our principal interest. All other activities seemed to fit like spokes in a wheel to the hub of membership. Therefore, your President and President-elect tried to find ways of increasing membership and holding our present numbers through the use of stimulating and pertinent programs, ideas, and resources such as DIRECT LINE, AMA NEWS, and LEGISLATIVE ROUNDUP. We have emphasized "Join Us" badges and permanent name tags for Board Meetings. Photographs of county activities and collages from counties have been used to promote communication. At the State Convention, a round table discussion was held to help county officers to plan their new year. A traveling award was instituted to be given each year, if deserved, to a county auxiliary who has given exceptional service to the community or shown internal improvement. Parliamentary procedure has been stressed as a way of creating shorter and more coherent business meetings. The Bylaws and Standing Rules have been revised to be a more effective tool and will be printed in the new DIRECTORY. Dual billing was tried and because of poor results will be changed.

The President-elect encouraged use of the Project Bank and distributed copies and other resources to the counties who requested them. Five projects were submitted to National. One, Buffalo County's GEMS project, is available in the current Bank.

Duties of officers and chairmen were outlined by letter, phone or personal visit. A form letter was never sent if a personal one was possible, and different styles were tried. State officers, chairmen and Councilors, and county presidents were each given workbooks with relevant information to be updated and passed on to their successor.

Inquiries were made in several Nebraska locations to discover the feasibility of beginning new local auxiliaries.

Members-at-Large received special attention and were invited to a gathering at the home of the Second Vice-President during Convention.

At the State level programs were presented on birth defects, Health Education Curriculum in Schools (Berkeley Project), stress in marriages and in families, and Swine Flu immunization. On the latter subject the State Health Department included Auxiliary Personnel in their deliberations. Six Auxiliary officers watched a presentation of the Berkeley Project to sixth graders in Wahoo, Nebraska.

At the county level, to support the State President's theme, several programs were presented relating to emotional health, including a rape awareness seminar, the start and staffing of a crisis line (NMJ, May issue), and a survey to determine the need for a child abuse seminar.

Counties continue to support AMA-ERF, with a total contribution of \$5,000 and NMF with a total of \$1,230. Two research scholarships were given to students from the monies received by this Nebraska Foundation. For the first time, the Auxiliary's Chairman was invited by the NMA to present the AMA-ERF contribution checks to the deans of the two medical schools, thus recognizing the Auxiliary's role in raising these funds. NEBPAC giving has increased, and legislation has been a prime concern, there having been two LEGS (Legislative Effort Group-System) ALERTS in recent months.

Cooperation continued with the NMA through their Advisory Committee and in the areas of legislation, health education and the Health Galleries with one-third of our goal accomplished. Copies of the NEWS-LETTER were sent to Society presidents in the areas which also have auxiliaries to keep them informed of our efforts, and NMJ articles were written with their interest also in mind.

Your Auxiliary President and President-

elect have traveled much: To learn, as to Chicago for the Confluence, taking 3 county presidents-elect with us, and to Iowa for their State Convention; to impart information, as at the Workshops in North Platte, Norfolk and Fremont; to share the fun of Auxiliary with you, as in Lincoln for the quilt drawing and in Omaha for their Fiftieth

Birthday Party. Finally we shall be in San Francisco to report to National the fine activities happening in Nebraska's local auxiliaries. We are proud to have served you this year!

Harriette S. Francis
Immediate Past President, NMAA



Helen L. Hayes, (Mrs. O. R.)
State Chairman, Health Galleries
Fund Raising Committee
Nebraska Medical Association Auxiliary

Mail contribution to:
University of Nebraska Foundation
P.O. Box 30186
Lincoln, Nebraska 68503.

Make check payable to:
Health Galleries, account 429.

HEALTH GALLERIES DONOR LIST

Recognition is given to individual and medical organizations as follows:

BENEFACTORS (name on specific exhibit)	\$5,000-\$25,000
PATRONS (name on a patron plaque)	1,000- 4,999
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Other Supporters	10- 199

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(Continued on next page)



Every effort is made to give proper recognition to contributors to the Health Galleries. If an error has been made, please notify Helen L. Hayes, Chairperson, Auxiliary Health Gallery Committee, 11711 Van Dorn, Walton, Nebraska 68461.

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Medicine

Medical, pharmaceutical and hospital journals receive awards.

Prizes have been awarded to 12 medical, pharmaceutical and hospital publications in the second annual Medical Journalism competition conducted by Sandoz Pharmaceuticals, East Hanover, N.J.

The first-prize recipients are Virginia Medical; Nebraska Medical Journal; Atlanta Medicine; The Bulletin of the Orange County Medical Association, Orange, Calif.; Ohio Pharmacist, and Memorial Sloan-Kettering Cancer Center Clinical Bulletin, New York. The award to each is \$500 and a plaque.

Honorable mentions were credited to Texas Medicine; Journal of the Mississippi State Medical Association; St. Louis Medicine; Westchester Medical Bulletin, Purchase, N.Y.; The Journal of Kansas Pharmacy, and Bulletin of the Mason Clinic, Seattle.

The Sandoz awards recognize the unique importance of state and local professional journals and are part of a year-round project to stimulate and develop improved journalism techniques among small-circulation, specialized publications. "We are delighted that the program has proved to be helpful to physicians and other editors," said Dr. Craig Burrell, vice president of Sandoz Pharmaceuticals. "Improvements in design and readability are useful to the publication staffs, and, more important, are beneficial to the readers. We therefore are delighted by the large number of editors who submitted entries and have participated in our workshops," said Dr. Burrell.

Virginia Medical, published in Richmond by The Medical Society of Virginia, has a circulation of about 7,000. It is edited by W. Taliaferro Thompson, M.D., of Richmond, and Ann Gray, managing editor. The monthly publication was cited for its excellent writing, crisp editing, variety of content, with an emphasis on news and a simplified format with a strong organization of departments.

Texas Medicine, published in Austin by the Texas Medical Association, has a circula-

tion of about 12,000. Don G. Harrel, M.D., of Dallas, is chairman of the board of publication; Joseph M. Abell Jr., M.D., of Austin, is chairman of the scientific publication committee, and Marilyn Baker is managing editor. The attractive covers, the use of large-size type, white space and other features which make the monthly publication extremely readable were among the assets cited by the judges.

The Nebraska Medical Journal, published monthly in Lincoln by The Nebraska Medical Association, has a circulation of 1,900. The editor is Frank Cole, M.D., of Lincoln. The candid, informal editorials and other features, including humorous and nostalgic items, are combined with original scientific articles and extensive news. Information services include listing of Nebraska offices of governmental and voluntary agencies in the health and related fields.

The Journal of the Mississippi State Medical Association, published in Jackson, has a circulation of 2,000. W. Moncure Dabney, M.D., of Crystal Springs, is editor and Nola Gibson is managing editor. The monthly publication concentrates on original scientific papers and articles about state medical subjects and is uncluttered with "fillers."

Atlanta Medicine, the bulletin of the Medical Association of Atlanta, is edited by S. Robert Lathan, M.D., and Eleanor M. Sumerville, Managing editor. The 6x9-inch, 40-page monthly publication is tightly edited and easy to read.

St. Louis Medicine, the bulletin of the St. Louis Medical Society, is published 20 times a year. George Bohigian, M.D., was editor in 1976 and Theodore L. Paletta, M.D., is the current editor. The publication publishes a great deal of material on a very low budget and is extremely responsive to the interests of its readers, as indicated by an annual survey.

The Bulletin of the Orange County Medical Association is edited by Arthur D. Silk,

M.D., of Orange, Calif. The monthly publication is equal in appearance and content to any regional or state medical journal, and Dr. Silk was given a special commendation.

Westchester Medical Bulletin, published 10 times a year by the Westchester County Medical Society, Purchase, N.Y., is edited by Ira J. Gelb, M.D., of New Rochelle, and Vincent R. Zingaro, managing editor. The publication has changed its format several times since its inception in 1935, including enlarging the typeface and other design revisions for easier reading. The cover article generally salutes the local chapter of a health organization.

Ohio Pharmacist, the monthly publication of the Ohio State Pharmaceutical Association, Columbus, is edited by Gerard Fee, executive director, and Mary Bonelli. The importance of the publication to the Association is indicated by its budget, which is its biggest item, with the exception of staff salaries.

The Journal of Kansas Pharmacy, published since 1880 by The Kansas Pharmaceutical Association, Topeka, is edited by Douglas P. Johnson, R.Ph., and Ellen M. Francis, managing editor. The monthly, 1,200-circulation publication, is designed to help Kansas pharmacists and covers a variety of professional subjects.

Clinical Bulletin is published quarterly by Memorial Sloan-Kettering Cancer Center, New York. The staff is headed by Harry Grabstald, M.D., editor-in-chief; Denise D. Wood, editor, and Walter Anderson, managing editor. Dr. Grabstald and Miss Wood have been with the journal since its founding in 1971. The journal is distributed to 10,000 physicians and researchers throughout the world and is highly regarded as a useful source of information about current methods of cancer diagnosis and treatment. Every aspect of the publication is exemplary, particularly the photos and artwork which are an integral part of the scientific articles.

The Bulletin of the Mason Clinic is published quarterly at the Virginia Mason Medical Center in Seattle, Wash. It is edited by David G. Fryer, M.D., with the assistance of Bettye Carson. Each issue features several significant scientific articles and brief clinical notes about recent cases. There are no personnel news or features.

The awards are in six categories, in accordance with the circulation and type of publication. The editors or managing editors of eight of the 12 publications are women. The judges gave special commendation to Ann Gray of Virginia Medical and Denise Wood of the Memorial Sloan-Kettering Cancer Clinical Bulletin.

Last year's top award recipients were the journals of the Indiana State Medical Association; Iowa Medical Society; Harris County Medical Society in Houston, Texas, and the Medical Society of the County of Monroe, in Rochester, N.Y.

In addition to the awards, the Sandoz Medical Journalism project includes free workshops, newsletters and individual critiques. Information can be obtained from Craig D. Burrell, M.D., Sandoz Pharmaceuticals, East Hanover, N.J. 07936.

Orthopedists elect:

At the 1977 Annual Meeting of Mid-Central States Orthopaedic Society, Inc., at the Roosevelt Royale Hotel, Cedar Rapids, Iowa, May 12-14th, the following new officers were elected:

President — Worth M. Gross, Tulsa, Oklahoma

Vice-President/President Elect — Thomas E. Curran, Aurora, Colorado

Secretary-Treasurer — Norman C. Bos, Hutchinson, Kansas

Member-At-Large to Board of Directors — James T. Leslie, Jefferson City, Missouri

The 1978 Annual Meeting will be held at Shangri La Lodge, Grand Lake, Oklahoma, June 8-11th.

Picture Gallery

NMA 1977 ANNUAL SESSION



Doctor Stanley M. Truhlsen presenting Reference Committee report.



Doctor Richard A. Cottingham presenting Reference Committee report.



NMA President, Doctor Harlan L. Papenfuss, officially opening scientific meeting.



NMA Policy Committee Member, Doctor John D. Coe, presenting necrology.



Doctor John E. Murphy presiding at Athletic Medicine Luncheon.



NMA Subcommittee on Athletic Injuries taping demonstration.



Mr. Jesse Owens addressing Athletic Medicine Luncheon.



Scientific Sessions Committee Chairman, Doctor Robert M. Stryker, introducing first scientific symposium.



Symposium moderator, Doctor Dwaine J. Peetz, and guest speakers, Doctors Howard W. Spiro and Robert I. White, Jr.



Mrs. Lyle H. Nelson, NMA Auxiliary AMA-ERF Chairman, presenting check to Doctor Joseph M. Holthaus, Dean, Creighton University School of Medicine.



Mrs. Lyle H. Nelson, NMA Auxiliary AMA-ERF Chairman, presenting check to Doctor Perry G. Rigby, Dean, University of Nebraska College of Medicine.



Nebraska Medical Foundation President, Louis J. Gogela, M.D., presenting student scholarship check to Richard C. Brunken.



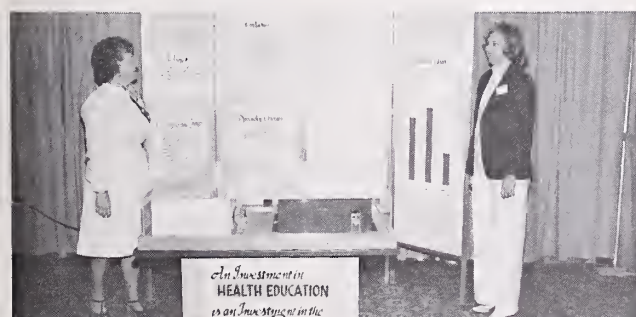
Nebraska Medical Foundation President, Louis J. Gogela, M.D., presenting student scholarship check to Robert E. Houston.



Symposium guest speaker, Edwin S. Shneidman, Ph.D.



Symposium audience.



Health Galleries exhibit.

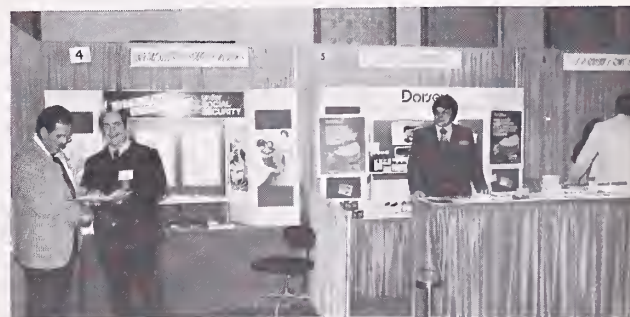


Exhibit area.



Exhibit area.



Exhibit area.

The Letter Box

Dear Dr. Cole:

In behalf of Sandoz Pharmaceuticals, I am very pleased to notify you that the Nebraska Medical Journal has been awarded first prize in your category in the Medical Journalism competition.

Many excellent publications were submitted, and the judges found it very difficult to select the winners. You and your associates indeed should be proud.

The award consists of a plaque and a check for \$500.

Can a Sandoz executive present this at a meeting of the Nebraska Medical Association? If so, please let me know when and where. Who will receive the award?

Congratulations!

Sincerely,
Richard Weiner
Richard Weiner, Inc.

Dr. Cole:

We would like to extend our appreciation to the N.M.A. for the courtesy and friendship shown us during the recent annual session. The experience gained while serving as student representatives from U.N.M.C. has certainly helped us to understand the function and organization of the N.M.A., and has encouraged both of us to participate in this important aspect of health care in the future. Also, Dr. Cassem's concepts of death and dying, the discussion on GI hemorrhage, and Dr. Shneidman's talk on suicide provided us with practical approaches to these medical problems. And lastly, it was an opportunity for us to meet old friends and make new friends, and we wish the members of the N.M.A. the very best.

Kathy Babcock
Hal Copple

Dear Dr. Cole:

In this hustle-bustle world when small courtesies and good manners seem to take up too much time, it is nice to be able to help someone now and then who calls our office for various information. I have found that many times I have gone to the Nebraska Medical Journal seeking answers, particularly when searching for an address or individual name. Your listings of national and state medical organizations are quick and easy references and enable me to be a "nice guy!" Please don't discontinue this valuable service to your readers!

As usual, I enjoyed your editorials in the May issue, especially your "Why Aren't We Symmetrical?" Also, want to thank you for the double listing of our 45th Annual Postgraduate Assembly!

Thanks again for a very well done medical publication that is enjoyed every month by this lay person.

Sincerely yours,
Janet S. Noll
Executive Secretary

Dear Dr. Cole:

Thank you for publishing my article on "Obesity: Definition, Measurement, and Some Causes of Treatment Failure" in May 1977 issue of Nebraska Medical Journal. However there is a typographic error, which I did not correct in the galley proof, on page 166, column two paragraph four line six: 600 kilograms should read 600 grams.

I am extremely sorry for an inconvenience and apologize for this. Thank you.

Sincerely,
Chandra M. Tiwary, M.D.
LTC, MC
Chief of Pediatric Endocrinology Serv.
Walter Reed Army Medical Center

Between Cases

Equal Opportunity.

Men are slower and stupider, women are quicker and sillier.

H. G. Wells, I think.

Quote Unquote.

All of life was a Mortality Conference.

Noah Gordon: The death committee.

On Experiments.

It is too bad that we cannot cut the patient in half in order to compare two regimens of treatment.

Bela Schick.

Pulse Department.

The rhythm is fundamentally regular with frequent extrasystoles.

Department Of Statistics.

Deaths for every 1,000 Americans.

1969 9.5

1974 9.2

1975 9.0, the lowest in history.

The Letter.

I have high pertension.

Words I Can Do Without.

No hard and fast rule, modicum, multiple studies, multiple tests, in essence, genre.

Department Of Chronology.

Relative to frequency, they are unusual.

The Steno.

Dictated: transverse colon

Typed: transverse:

Witticism Of The Month.

My husband passed away last summer.

O he died.

Postgraduate Gems.

Never let a surgeon get your patient.

Anon.

The Ortho.

The patient's ankle reflexes are not elicitable but are symmetrical.

Quote Unquote.

Statistics don't bleed.

People bleed.

Ibid.

—F.C.

Welcome New Members

David C. Imes, M.D.
1275 Sage Street
Gering, Nebraska 69341

Alan K. Johnson, M.D.
1275 Sage Street
Gering, Nebraska 69341

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —

July 23 — Chadron — Elks Lodge
July 30 — Norfolk — Elks Lodge
August 13 — Scottsbluff — St. Mary's
Hospital
August 27 — McCook — Elks Lodge

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRI-

CIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

NEBRASKA MEDICAL ASSOCIATION

FALL SESSION — September 29 & 30,
October 1, 1977, Lincoln Hilton Hotel,
Lincoln, Nebraska.

37TH ANNUAL AMA CONGRESS ON OC-

CUPATIONAL HEALTH — September 19-20, 1977, at Stouffer's Riverfront Towers in St. Louis, Missouri; cosponsored by the National Institute for Occupational Safety and Health, is open to all health professionals and is of particular interest and help to part-time occupational physicians. Concurrent sessions will cover health programs for special employee groups, work stress and job performance, the vital role of the occupational health nurse, toxic substances in industry, emergency medical/disaster planning, and many other topics. Registration fee for the Congress is \$40.00. The Congress provides 12 hours Category I credit toward AMA Physician's Recognition Award. Write to: Department of Environmental, Public, and Occupational Health, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

45TH ANNUAL POSTGRADUATE AS-

SEMBLY, Omaha Mid-West Clinical Society; Omaha Hilton Hotel; October 31, November 1 and 2, 1977. For information contact: Janet S. Noll, Executive Secretary, Omaha Mid-West Clinical Society, 540 Medical Arts Building — 402-345/7146, Omaha, Nebraska 68102.

AMERICAN MEDICAL ASSOCIATION —

Interim Session, House of Delegates, December 4-7, 1977, Palmer House, Chicago, Illinois.

NEBRASKA OBSTETRIC GYNECOLOGIC

SOCIETY (NOGS) — Annual Scientific

Session; Frontier Hotel, Las Vegas, Nevada; December 8-11, 1977. Write to: Dr. Dennis Beavers, Secretary-Treasurer, 8552 Cass Street, Omaha, Nebraska 68114.

AMERICAN MEDICAL ASSOCIATION — Winter Scientific Program, December 10-13, 1977, Miami, Florida.

COLONOSCOPY TRAINING PROGRAM — The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in

New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — April 30 - May 3, 1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 17-22, 1978, St. Louis, Missouri.

Books



Books received.

Purington, R. G. and Patterson, W.: **Handling radiation emergencies**; paperback; 170 pages; published 1977 by National Fire Protection Association, Boston.

REPORTS OF OFFICERS, DELEGATES AND COMMITTEES

ANNUAL SESSION

May 1, 2, and 4, 1977

(These reports appear as originally submitted. For the House of Delegates deliberations, possible changes, and final action, refer to the minutes which follow these reports.)

REPORT OF THE PRESIDENT

Mr. Chairman, delegates, guests and colleagues. The Constitution and By-Laws of the Nebraska Medical Association stipulates that among his duties, the president shall deliver an address during the session at which his administration expires. In compliance, I have prepared a few remarks for your consideration.

"There is strength through unity" is a frequently quoted axiom. Conversely, "divide and conquer" is an axiom of warfare that dates back into history, the politician and the bureaucrat respect the former and adopt the latter as a means to an end in this day and age.

During the past two years, serving as president-elect and then president of the Nebraska Medical Association, I have attempted to stress the concept of unity. Physicians find this concept difficult to put into practice. The education of a physician stresses individualism and competition. Through high school, college and medical school, the philosophy of individual endeavor remains foremost. This concept continues through postgraduate training and into the early years of establishing a private practice in medicine. Except for a team approach in providing medical care for the patient, there is little thought of uniting with colleagues in furthering political or legislative goals. It is no wonder, therefore, that physicians are often looked upon as egotistical and individualistic.

The rules and regulations of our governmental bureaucracy exert their effect on the private practitioner within a few weeks after he has opened his office. Incomprehension is often followed by a period of frustration. Unfortunately, some take the attitude that the future is predestined and willing compliance is mandatory for survival. Since the battle is already lost, let someone else continue the fighting.

Fortunately, there are many physicians who now feel that the future is not predetermined. By working together within their specialty organizations, they are able to effect change beneficial to their specialty and to medicine. Unfortunately, too many physicians overlook the fact that any one specialty organization is relatively small and encompasses only a rather few physicians with a limited outlook on health care. Consequently, the specialty organization has a rather weak voice. When merged, however, with each other into the Nebraska Medical Association and finally into the American Medical Association, the number of physicians working together significantly increases. The voice becomes louder and the voice has a greater effect.

It is still difficult to prevail upon the ophthalmologist that he should come to the assistance of the orthopedist. It is still too frequent that the surgeon or internist will smilingly comment "Look what they're doing to the anesthesiologist now?" As physicians, we

still have not convinced all of our colleagues that what happens to the anesthesiologist today will effect the pathologist tomorrow and the family physician next week. Many of us condone the activities of the optometrist rather than offer referral to an ophthalmologist; utilize the services of a lay-laboratory rather than the consultative services of a pathologist; and suggest the therapy provided by the podiatrist in lieu of referral to an orthopedist. We still have not evoked a spirit of complete unity of physicians throughout the country. We are improving. We are doing better. But even with our progress, it is quite evident that physicians in this country have a rather small voice in the so-called "health care industry" of this country.

A little over a month ago, I spent a couple of days in Washington. The purpose of the visit was to meet and attempt to establish some liaison with each member of our congressional delegation from Nebraska. In previous years, I had met with Senator Curtis and Representatives Thone and Smith. Their position is probably well known to all of you as they are generally considered to be "friends of medicine." My discussion with each of them at this time again served to confirm in my mind their adherence to previous concepts. I had not previously met Senator Zorinsky although I was familiar with his campaign statements, particularly those relative to medicine and health care. On the basis of his campaign statements, I was therefore not surprised with the courtesy that he extended and the general agreement and philosophy that he projected. I was really not prepared for the soft-spoken somewhat reserved and mild mannered individual that I met. I had expected someone more opinionated, decisive and egotistical. I left with the feeling that Senator Zorinsky would be willing to listen and would generally support the basic philosophies held by the majority of Nebraska physicians, as such concern medicine and health care.

We got to know Senator Cavanaugh during the 1976 legislative session in Lincoln. As you recall, he was the leader of the opposition to LB-434, the Hospital-Medical Liability Act, passed by the Unicameral. As you may be aware, Mr. Cavanaugh is a young, eager and energetic red-headed Irishman exuding confidence. He is quite aware of the fact that his red hair has appeared in color on two occasions in Time Magazine since Congress met in January. The fact that President Carter and Representative O'Neal have each singled him out for special attention has been pleasing to him. At the same time, he was quick to remind me that he did not have the support of physicians in his race for the House Seat in 1976. Nevertheless, he is cognizant of the fact that he will have to run for reelection in 1978. The meeting with John Cavanaugh seemed to be the most gratifying in that he agreed to listen and agreed to meet with a committee of Nebraska physicians in Omaha at regular intervals every 2-3 months. I certainly hope that the physicians in this district implement the proposal. He voluntarily expressed his conservative attitude toward National Health Insurance and future health planning.

The discussion with the Congressional Representatives centered around 11 items that were of particular concern to Nebraska physicians. Such included (1) The Carter Administration proposal for hospital cost ceilings. Such is considered a top issue in that President Carter "wants to do something dramatic." We, however, are concerned that in the process of containing increases in cost, an actual reduction in benefits and the level of care may result. In our opinion, any artificial lid on a cost ceiling would amount to wage and price control which could be extended to physician

services as well. To each of our representatives, we commented about the Veterans Administration and other government hospitals that are exempt from all recent and proposed federal legislation. We strongly support the view that such hospitals should be subject to the same rules and regulations imposed upon the hospitals in the private sector.

(2) The Physician Extender Reimbursement Bill (S-708) introduced by Senators Clark and Leahy was considered. Although we strongly support the expanded use of physicians assistants, especially in rural areas, we have serious reservations about reimbursement directly to nurse practitioners or clinical entities. Once a physician is taken out of the payment chain, there is a grave risk of losing supervision, responsibility and control over the care of the patient. In such event, serious malpractice questions could arise.

(3) National Health Insurance was generally mentioned by each of the Congressional Delegates. We pointed out that we do not favor the National Health Insurance concept, and, in fact, voted as a State Association even to preclude introduction of the AMA Bill (S-218) introduced by Senator Hansen of Wyoming. Nevertheless, we would encourage their support of the AMA Bill as a more conservative, private sector approach than the Kennedy-Corman measure. In discussing National Health Insurance, one of our Representatives indicated that we probably did not realize the extent of the socialistic philosophy in the House of Representatives. It was indicated that approximately 100 out of the 435 members of the House of Representatives were strongly socialistic and would vote tomorrow for full National Health Insurance with setting of fees and limitation of services.

(4) We pointed out that Nebraska had joined North Carolina in a suit challenging the constitutionality of PL-93-641 — the Health Planning Law Revisions. We contend that such usurps the legitimate responsibility and decision making authority of state and local officials. We also oppose the certificate of need concept and the efforts of Kennedy and Rogers to extend such to physician's offices. We, however, are cognizant of the fact that Carter had indicated that "health care is too important to be left to the doctors."

(5) S-143 introduced by Senator Talmadge is the Medicare-Medicaid fraud and abuse act. In general, we agree with the thrust and principle of anti-fraud and abuse legislation but feel that in some areas it goes too far. It includes all group practices instead of focusing only on so-called "Medicaid mills." It also creates some possible confidentiality problems embodied in the disclosure requirements concerning patient care.

(6) The new Talmadge Bill is expected to be reintroduced in the near future. This was S-3205 of the 94th Congress having to do with Medicare-Medicaid Administrative and Reimbursement Reform. Our concerns centered on (a) the ban on percentage or leasing arrangements by hospital associated physicians; (b) "locking in" of Medicaid reimbursement at 80% of Medicare; and (c) "all or none" provision allowing physician to be either participating or nonparticipating without ability to take assignments on a case-by-case basis.

(7) We pointed out that no contract has yet been awarded for planning PSRO in Nebraska. We had opposed the original law and would consider repeal desirable. Representative Smith is actually planning introduction of legislation for such repeal. In the alternative, we feel that at least major substantive

modifications are necessary. We are also concerned that the words "quality of medical care" that was so prevalent in the vocabulary of the Washington politician when Medicare-Medicaid came into being has apparently been largely dropped from the vocabulary. Instead, "cost containment" and "cost control" have been substituted. One of our representatives indicated that the federal government cannot afford a continuing increase in the quality of medical care. When Medicare came into being, such procedures as total hip replacements, open heart surgery, cat scanning, etc. were not available. These are dramatic advances in medicine for better medical care. The federal government cannot afford to underwrite future developments of such magnitude. The American people must learn to be satisfied with the quality of medical care available today. If we can provide the quality of medical care available today and reduce the cost of such care, we could keep the Medicare-Medicaid program within reasonable cost as long as we do not add new developments in an effort to increase the quality of medical care available.

(8) We noted the Clinical Laboratories Act (S-705) introduced by Senator Javits. We are not concerned specifically over regulation of laboratories themselves but we are concerned over the further government intrusion into an area of traditional state responsibility.

(9) HR-1603 introduced by Congressman Rogers concerned generic drugs and drug safety. Again, we are not opposed to obtaining prescriptions of equal caliber at lower price but feel that individual physicians must be able to make judgements regarding both quality and effectiveness. Drug safety is fine but there is a definite risk that such may go too far. It may go to the point of stifling research and development of much needed new therapeutic agents.

(10) In regard to professional liability, efforts should be continued to seek refinements of laws passed at the state level. Such should be accomplished without federal interference or preemption.

(11) Bureaucratic agencies are generally promulgating rules and regulations that far exceed the intent of the law passed by Congress. In order to establish some sort of accountability, Congress needs to exercise greater authority and control over the rules, regulations, policies and activities of both the major departments and the independent commissions. We pointed out the effect of the F.T.C. in the field of medicine. This commission, above all others, is using the concept of divide and conquer. The attack they made on the pathologists, the attack currently on the anesthesiologists, the attack on the RVS of several state associations and specialty organizations are all evidence of such. It is very easy for such a commission to exhaust the financial resources of private groups or organizations at taxpayer's expense. It was pointed out to us by each of our congressional representatives that the F.T.C. was an "independent commission" and that not too much could be done about it other than attempt to reduce appropriations. One of our representatives indicated that we would probably have "more problems from the F.T.C. under President Carter" than we had experienced in the past. This statement appears to be true as we look to HR-3816, the Federal Trade Commission Amendments of 1977. If such is passed, it would increase the autonomy of the F.T.C. and subject every individual, partnership or other organization to the threat of F.T.C. litigation and possible control. More specifically, the F.T.C. would be authorized to seize control of the assets of anyone, including those of

any physician, physician practice or membership organization, pending the filing and disposition of an F.T.C. complaint. Any physician, physician practice, or membership organization could be subject to litigation by anyone else claiming injury for a violation of any F.T.C. rule or order pertaining to an unfair or deceptive act or practice under the Bill. Congressman Smith has, however, introduced a "sunset" bill. It was pointed out that of 403 laws passed by the Congress, 7,640 regulations were spawned as a result. Congressman Cavanaugh is the co-sponsor of a bill (HR-2383) that would provide that all rules and regulations promulgated by a federal agency would be subject to review by the Congress before they became effective. All of the Congressional delegation expressed great concern about the expanding bureaucracy which faces the American people. You all, of course, are aware of the qualifications of a bureaucrat. I picked this up in Washington too. A bureaucrat is one who (1) has no expertise in the field, (2) cannot be held responsible for what he does, and (3) takes himself very seriously.

Those are a few of the issues we face at the national level. There are, however, issues to be faced at the state level. The 1977 Nebraska Legislative Session has been rather "benign." At the same time, there were some twenty-four bills introduced in the current legislative session related to health.

LB-34 requiring rubella testing prior to marriage; LB-37 establishing education assistance for potential podiatrists; LB-409 providing licensing of social workers are examples of bills killed in committee. LB-49 to allow 17 year olds to donate blood and other tissues; LB-72 to provide birth recording criteria; LB-406 to license audiologists and speech pathologists and LB-494 to create a commission on rural health manpower are examples of bills that have been passed. Some bills are still in committee and awaiting action. LB-412 would license acupuncturists and their assistants. This bill was indefinitely postponed by the committee and will probably be referred to an interim study committee. Although any bill introduced into the legislature concerning medical care or relating to health is of concern to the Nebraska Medical Association, our greatest concern to date has centered about LB-103 and LB-43. LB-103 is a Nebraska Drug Product Selection Act. This bill is an amended version of one that was previously defeated. It provides that the pharmacist may substitute a similar drug as that prescribed by a physician if less costly unless the physician designates on the prescription that there be no substitution. We agreed not to oppose this measure as long as the bill was not amended. The bill has been approved by the legislature and signed by the governor. LB-43 required the filing of certain statistical and financial data by Nebraska hospitals with the Board of Health on an annual basis. It further provided that certain statistical and financial data would also be published in a local newspaper. An attempt was made to develop liaison with the Nebraska Hospital Association on this bill. When such failed, the Nebraska Medical Association gave tacit support to a rewritten amended version but did not lobby for the bill. The Nebraska Hospital Association finally decided to oppose the bill. Although the bill was indefinitely postponed by the Public Health and Welfare Committee and an attempt to raise the bill on the floor of the Legislature failed, it is apparent that the issue is still with us as evidenced by the statements published in the various news media within recent days. In retrospect, we probably should have been active in lobbying for the rewritten and amended version of the bill as one that hospitals and physicians

could live with rather than let LB-43 die. In view of action taken in other states, we may face a much more grave challenge in this area with the next legislative session.

So what have I said? I have attempted to briefly review legislation concerning medicine and health care at the national and state levels. I have attempted to impart the position of the Nebraska Medical Association on many of these issues.

Politics has become a way of life. The 1976 legislative session taught many physicians that they must engage in politics on an active basis. It also taught them that results can be obtained if there is a spirit of unity and cooperation. As one senator pointed out, physicians have finally become active in politics and they should now realize that they must remain active in order to survive. It is recognized that the political activity of physicians was effective and constructive. Such political activity has become an added necessary ingredient in the practice of medicine. Physicians must remain active in politics in order to protect their patients and the character of their practice. Such activity will affect the welfare of the patient of tomorrow to the same extent as the clinical management prescribed for the patient. Many of us agree with this concept. We are also firmly convinced, however, that the independence and egotism of physicians must give way to a spirit of unity in order to be effective. An effective means to such an end is membership in the Nebraska Medical Association and the American Medical Association.

There is an old story about a man who practiced a profession 55 years but never became a member of his profession's association. Yet, at the time of his death, it was noted that his will directed that only association members serve as pallbearers at his funeral. After some effort, enough association members were gathered to carry the man's body to its final resting place. Following the funeral, the minister remarked to one of the pallbearers, "I note that all of you are members of the professional association and yet the deceased was never a member. Isn't that a bit unusual?" "Well," replied the pallbearer, "We figured that since the association carried him all his working life, we might as well finish the job and carry him the rest of the way!"

Serving you as President of the Nebraska Medical Association has been an extremely interesting experience. I have had the opportunity to meet a lot of people, not only in Nebraska, but in other areas of the country as well. I have had the opportunity to meet many of you in the area of your practice. There have been a number of frustrations — but, on the whole, it has been a most gratifying year. Consequently, I would like to express my appreciation to each of you for allowing me the privilege of serving you as president.

At the same time, this role would not have been as pleasurable nor even possible without the help of many of you. The time and effort that you devoted to the Association as a member of a working committee certainly deserves recognition by your colleagues. I would like to recognize and thank each of you individually for your contribution; but, time does not permit.

At the same time, I would like to single out three of your colleagues who have not been in the limelight but have contributed a tremendous amount of time and effort in behalf of the Association and in your behalf.

The Secretary-Treasurer of the Nebraska Medical Association is Russ Gorthey. He has maintained a very "low profile" in this organization. Consequently, I

wonder if you are aware of all of his contributions to organized medicine. Having served as Secretary-Treasurer of this Association for several years, he has been a member of the Board of Directors as well as a member of several working committees of the Association. He is also your representative to the North Central Conference where he is currently serving as President of that organization. He just completed his term of office as President of a component county medical society, the Lancaster County Medical Society. In my opinion, this recognition of his service to organized medicine is deserved.

Blaine Roffman and Herb Reese are entitled to special plaudits for their accomplishment in the field of medical liability legislation. They were very instrumental in getting this bill put together and through the Legislature. Countless hours were devoted by them in committee activities as the medical liability problem was aggressively attacked. They are certainly entitled to a significant share of the credit for the benefit you are already receiving as a result of the passage of LB-434.

As to LB-434 — where are we? As you recall, the District Court held that each section of LB-434 was constitutional and that LB-434 was constitutional as a whole. The Nebraska Attorney General appealed this ruling to the Nebraska Supreme Court on January 19, 1977. The Nebraska Medical Association filed its brief with the Nebraska Supreme Court on February 19, 1977. Since the hearing before the Nebraska Supreme Court was not on the May docket, a "stipulation for advancement" was filed with the Nebraska Supreme Court. Such stipulation was granted by the court which will hear arguments on the measure on May 6, 1977 — next Friday. In addition, the Nebraska Hospital Association has filed an amicus curiae brief with the Nebraska Supreme Court relative to LB-434 in our behalf. We look forward to a decision by the court prior to summer adjournment. We are optimistic that the court will uphold the decision of the District Court in finding LB-434 constitutional in all aspects.

We would certainly like to think that this law has already had a desired effect. During the last six months of 1976, there was a considerable reduction in the number of medical liability claims filed in Nebraska. Consequently, your malpractice insurance premiums on renewal of your policy on or after May 1, 1977, are being reduced from 25% to 30% of the rates currently in effect which translates into a reduction of premium of approximately 17.5% of that which you paid last year.

Before closing my remarks, I would be remiss if I did not recognize our staff. I do wish to assure you that we have a very competent and dedicated staff at 1902 First National Bank Building in Lincoln. Both Ken Neff and Bill Schellpeper are a credit to the Nebraska Medical Association. They are extremely competent in their role and vital to the functioning of your organization. Without them, your officers could not function. Ken and Bill along with John Humpal are well known by each

Nebraska Senator and have proven to be very effective lobbyists. Mary, Pam, Kathy and Lisa are all dedicated to this organization and of the highest caliber. My personal thanks go out to each of them.

Again, my thanks for the opportunity of serving you this last year. Along with you, I look forward to the revitalized leadership embodied in our incoming President, Arnold Lempka. I feel confident that I can assure him of the same dedicated support and assistance for the ensuing year that you have provided me. Thank you.

REPORT OF THE BOARD OF DIRECTORS

Charles F. Ashby, M.D., Geneva, Chairman; Robert B. Benthack, M.D., Wayne; Dwight W. Burney, Jr., M.D., Omaha; Robert J. Morgan, M.D., Alliance; Russell L. Gorthey, M.D., Lincoln.

At the close of 1976, the Nebraska Medical Association showed a plus balance in the budget of \$3,772. The total fund balance on December 31, 1976, reflected a balance of \$195,823, consisting of cash, investments and deferred income for 1977 membership dues. The above figure also contains the balance of the liability fund.

The Board has adopted a budget of \$203,448, for 1977, which reflects increases in overhead costs such as committee and program activity, personnel, rent, equipment and supplies. It is anticipated that income for the year will not exceed the budget figure. The expenses of the Association are regularly reviewed and it would be the opinion of the Board that enactment of any significant new programs will necessitate a careful assessment regarding the financial needs of such programs.

The Nebraska Medical Journal experienced a modest increase in advertising income in 1976, but still necessitates financial support in the manner previously reported by the Board. The Journal Editor, Dr. Frank Cole, enters his thirteenth year with the Journal and continues to produce a fine scientific publication for the membership.

The Board regularly reviews the investment portfolio and makes periodic modification to reflect changes in the market. It may be possible this year to transfer some funds from special accounts of the Association to the investment fund which will improve the ratio of reserves to budget.

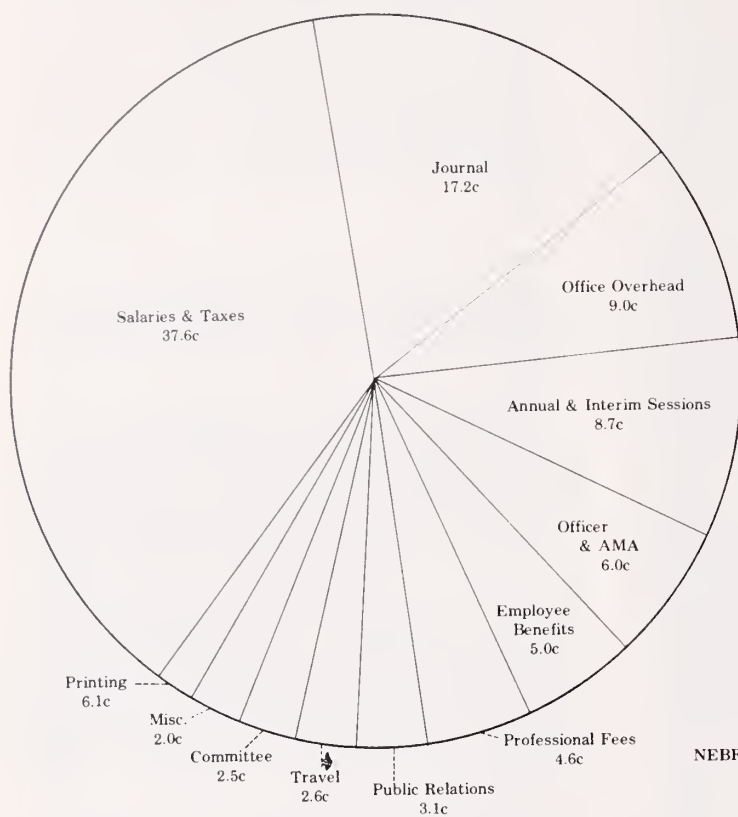
The 1976 Annual Audit precedes this report and accurately depicts the Association's financial status as of December 31, 1976. Should any significant financial changes take place, the Board will make them known to the membership.

Please note succeeding pages regarding income, expense and membership status, both county and state.

Respectfully submitted,
CHARLES F. ASHBY, M.D.
Chairman

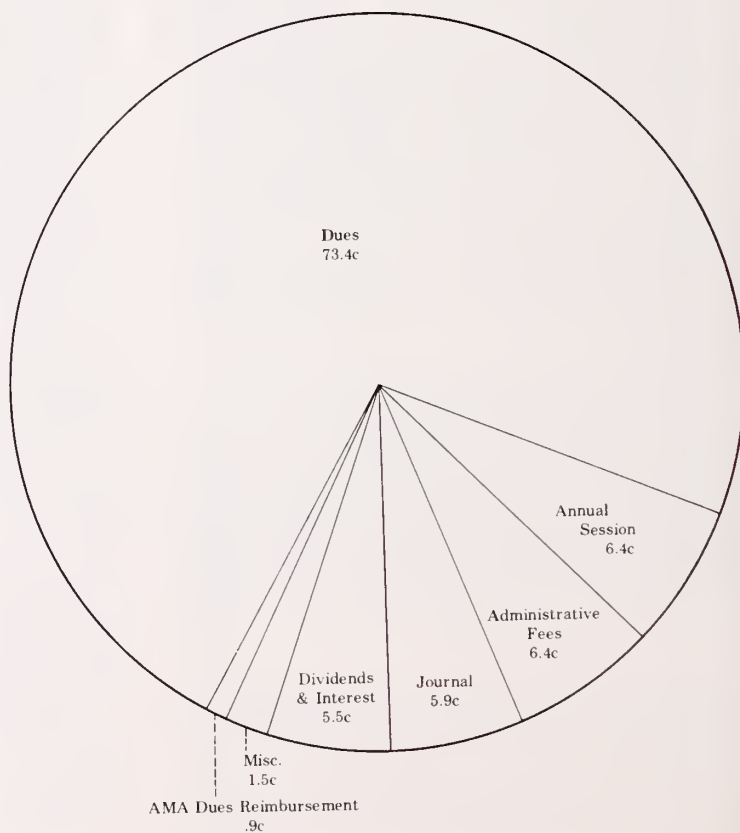
NEBRASKA MEDICAL ASSOCIATION

EXPENDITURES — 1976



NEBRASKA MEDICAL ASSOCIATION

INCOME — 1976



1977 COUNTY SOCIETY MEMBERSHIP

As of April 15, 1977

Figures shown () indicate 1976 membership as of December 31, 1976

County	State & AMA		No AMA		Life		Totals	1977 Delinquent
Adams	27	(26)	9	(11)	7	(7)	43 (44)	1
Antelope-Pierce	7	(8)	1			(1)	8 (9)	1
Boone		(2)					(2)	2
Box Butte	8	(8)		(1)	3	(1)	11 (10)	
Buffalo	33	(30)	12	(12)	2	(4)	47 (46)	1
Butler			5	(5)			5 (5)	
Cass	4	(2)	2	(3)	1	(1)	7 (6)	
Cheyenne-Kimball-Deuel	9	(8)		(2)	1		10 (10)	
Cuming	2	(2)	3	(2)			5 (4)	
Custer	3	(3)	1	(1)	1	(1)	5 (5)	
Dawson	10	(12)	1	(1)	1	(1)	12 (14)	
Dodge	16	(17)	6	(5)	5	(5)	27 (27)	1
Five County	8	(7)	1	(1)	1	(1)	10 (9)	
Four County	3	(4)	2	(3)			5 (7)	
Gage	8	(11)	8	(5)	5	(5)	21 (21)	
Hall	32	(30)	12	(15)	5	(3)	49 (48)	2
Hamilton	3	(4)	4	(3)	2	(2)	9 (9)	
Holt & Northwest	10	(11)	5	(3)			15 (14)	
Howard	1	(2)				(1)	1 (3)	
Jefferson	4	(6)	2		1	(1)	7 (7)	
Knox	3	(3)	2	(2)	1	(1)	6 (6)	
Lancaster	157	(164)	58	(64)	22	(28)	237 (255)	9
Lincoln	13	(10)	21	(19)	4	(5)	38 (34)	
Madison	20	(21)	4	(6)	5	(5)	29 (32)	3
Northwest	11	(10)	3	(5)	1	(1)	15 (16)	
Omaha	428	(449)	159	(159)	52	(57)	639 (665)	35
Otoe	6	(8)	5	(4)	2	(2)	13 (14)	
Perkins-Chase	3	(5)	2				5 (5)	
Phelps	3	(3)	3	(3)		(1)	6 (7)	
Platte-Loup	15	(16)	5	(6)	1	(1)	21 (23)	3
Saline	5	(6)					5 (6)	
Saunders	5	(4)					5 (4)	
Scotts Bluff	33	(29)	18	(19)	3	(3)	54 (51)	1
Seward	8	(8)		(1)		(1)	8 (10)	
South Central	1	(3)	3	(2)	2	(2)	6 (7)	
Southeast	8	(9)	6	(5)	3	(3)	17 (17)	
Southwest	15	(15)			3	(3)	18 (18)	
Stanton		(1)					(1)	
Washington-Burt	8	(8)	1	(2)	4	(4)	13 (14)	
York	6	(5)	5	(6)	1	(1)	12 (12)	
TOTAL	936	(970)	369	(376)	139	(151)	1444 (1497)	59

% of Total Membership

Omaha 44.3%
 Lincoln 16.4%
 Out State 39.3%

1977 STUDENT AND HOUSE OFFICER MEMBERSHIPS

	U of N	Creighton	Misc	Total
Student Members	59	18		77
House Officer Members	15	4	1	20

AGE BREAKDOWN OF NON-A.M.A. MEMBERS

Age Group	Omaha	Lincoln	Out State	Total
Under 40	40	17	47	104
40-50	54	16	40	111
51-60	45	16	32	93
61-69	12	2	21	35
70 & Over	8	2	8	18
No Age Available		5	4	9
Totals	159	58	152	369

Following are the number of members upon which the number of Delegates to the A.M.A. are based:

	State & AMA	State Only*	Service	Life	Total
1971	1222	11	2		1235
1972	1041	13	1	125	1180
1973	1004	11	1	124	1140
1974	1067	13	1	131	1212
1975	1018	24		135	1177
1976	970	14		151	1135
1977	936	17		139	1092

*Eligible for dues exemption in A.M.A. because of age, retirement, disability, etc.

REPORT OF DELEGATE TO A.M.A. — 1976 CLINICAL MEETING

This delegate's report of the Clinical Convention of the A.M.A., December, 1976, will only deal with the issue of the resubmission of the A.M.A. National Health Insurance bill to the 95th Congress which convened in January, 1977.

Our A.M.A. resolution (#9) which asked the A.M.A. not to resubmit the bill, was defeated.

Six other states submitted similar resolutions. The vote to reject this package of resolutions was 180-57. The A.M.A. promptly resubmitted its N.H.I. bill to the 95th Congress.

Your delegates believe that you should have a permanent record of what they said in defense of our resolution. The following is a verbatim account of the testimony which Dr. John R. Schenken and Dr. Carl Cornelius presented to the reference committee and to the entire House of Delegates.

Testimony Before the Reference Committee
of the A.M.A. [Res. #9]
In Opposition to Re-introduction of HR6222
A.M.A., National Health Insurance Bill
by
John R. Schenken, M.D.

Since we last met, the nation is engaged in a new ballgame. The Republican Party platform stated that it is unalterably opposed to a National Health Insurance. The Democratic party's platform endorsed a compulsory National Health Insurance program for all Americans and so did Mr. Jimmy Carter, its candidate.

The Democrats won the election and have a majority

in the Congress and a Mr. Carter will be in the White House on January 20, 1977.

There are millions of Americans who subscribe to the repeated polls which show that physicians rank #1 among the 20 leading occupations in the United States. It is not unimportant that these same polls reveal that members of Congress rate #20.

These facts make it mandatory that we re-assess our present position on HR6222 or any other N.H.I. program which might be sponsored by the A.M.A.

For this reason, the physicians in Nebraska took a new, hard look at our posture regarding HR6222. Our House of Delegates voted 49 to 1 against re-introduction of HR6222 into the 95th Congress.

Our Resolution #9 opposes re-introduction of HR6222 for the following cogent reasons. Also of interest is the fact that the Honorable Carl T. Curtis of Nebraska, the ranking Republican on the Senate Finance Committee, is in full agreement with our position.

1. Sponsorship of an N.H.I. bill concedes that there is a need for federal financing of the population generally for medical care. No evidence that an N.H.I. is necessary.
2. A.M.A. should address itself only to those who are unable to obtain medical care and only through local and state government, and not through the federal government.
3. This bill provides relief for income tax payers, the preponderance of whom have medical care insurance coverage without federal subsidy. The people who are not income tax payers may obtain medical care benefits through existing law.
4. HR6222, Page 18, lines 8-9, provides that everyone who has the ability to pay income tax will be allowed at least a 10% subsidy toward their insurance premium. It is self-evident that HR6222 subsidizes millions of Americans who have no need for such a subsidy and should not be subjected to federal controls. There are two landmark cases by the U.S. Supreme Court which clearly deny these citizens the right of free choice if they are subsidized. One in 1942, Wickard vs Filburn: "It is hardly lack of due process for the government to regulate that which it subsidizes." More pointed, applicable to patients and their doctors, is the 1975 case of AAPS vs Weinberger regarding PSRO in which the Justice Department argues that "anyone who has their medical care paid for in whole or in part by government has no constitutional right to free choice of physician . . . or hospital."

The U.S. Supreme Court did not take exception to this argument and refused to provide patients and doctors constitutional protection from the invasion of their rights by the PSRO law.

5. The A.M.A. attempted to head off Medicare by introducing its own federal legislative proposal called Eldercare. It back-fired.

The A.M.A. attempted to make its medicredit bill more acceptable to federal legislators by adding provisions for Peer Review organizations. This also back-fired and resulted in a PSRO law which the A.M.A. admits is bad and says should be modified by at least 19 important substantive amendments. Here again it has failed.

SUMMARY:

1. Conceding a bad principle in the expectation of

softening its consequences by some diversionary legislative tactic such as HR6222 doesn't work.

You merely strengthen your enemies. They gladly accept your concession because it makes it easier for them to get what they wanted in the first place.

2. Our best hope is that N.H.I. will not be enacted in any form on the basis that the President Elect and the leaders of the Democrat Party decide that they cannot be re-elected in 1980 unless they demonstrate fiscal responsibility which they cannot do if they pass N.H.I. in any form.

**Testimony Before the House of Delegates
in Support of Resolution #9
John R. Schenken, M.D.**

My discussion will be directed to the principles behind HR6222 as set forth by the Board of Trustees in its Report QQ to this House. These are found on page 3, lines 1-14 inclusive of the Report. I will discuss them one by one.

1. "Any national plan should build on existing private insurance and . . . should not be operated as a government service."

This leaves the impression that private initiative will not be curbed or interfered with by government. This is untrue — government financing means government control. Wickard vs. Filburn, 1942 and AAPS vs. Weinberger, 1975 clearly establish this fact. The Attorney General stated that a patient who received any medical care financed by government had no constitutional right to freedom of choice of physician or hospital. (Accepted by the U.S. Supreme Court.)

Comment: HR6222 does not support the principle of private insurance not operated by government. Page 1, preamble: "It is a bill to establish a comprehensive medical program . . . by federal financing."

Under the program (p. 3, line 5): "Employers would be required to make available and contribute toward the cost . . . insurance for their employees and their families." This applies to every employer including physicians "that employ at least one employee" (page 5, lines 19-23, HR6222).

(Page 3, line 8) "The federal government would pay . . . the cost . . . for those unable to pay . . . through . . . credit against income tax. (Page 9, lines 1-22 penalty for noncompliance.)

SUMMARY: A bill to establish a program of medical care . . . by federal financing and forcing all employers to contribute and provides for penalties for noncompliance. This is anything but private insurance.

2. "The plan should be financed by private payments for insurance coverage for those with ability to pay and from general tax funds for low income groups."

While the bill appears to do this, actually it provides for a federally financed service, enforced and controlled by federal authority. In addition, it subsidizes everyone at least 10% regardless of ability to pay.

3. "The plan should utilize the pluralistic health care systems."

Agree, but no evidence exists that such a system would prevail once the conditions of the insurance contract are dictated by federal authority which

requires "qualified insurance."

4. "The benefits should be comprehensive embracing both basic and catastrophic coverage."

Agree that the bill provides for this type of coverage, but the question is do we need a compulsory N.H.I. system to cover unmet needs.

5. "There should be minimal federal involvement."

Agree, but there is no mechanism for minimum federal involvement in a government financed program. The bill provides for a Board which shall prescribe . . . regulations . . . establish . . . federal standards . . . review the effectiveness of the program . . . and is authorized to request from any department any information . . . and . . . such department . . . is authorized to cooperate." (page 36)

This degree of federal involvement cannot be realistically described as minimal! It is total regulation and control.

6. "No payroll tax and no administration under social security (which are the elements of a National Health Service System)."

Absence of payroll tax and SSA administration do not change the fact that it is a federal compulsory subsidy and control program which are the essential elements of a national health service system.

7. "The program should include appropriate cost sharing."

Cost sharing with the federal government does not reduce federal controls. Example: 1) Hill-Burton Act; 2) Medicare-Medicaid, Sec. 1801 promising non-interference. We know that a 10% cost sharing by government means 100% control. The cost sharing is compulsory for the employer. The employee can only buy prescribed "qualified insurance," not private insurance of his own choice.

8. "Federal subsidies should provide assistance for those in need."

1. We already have such provisions in federal law in Medicaid.

2. Who defines and determines "need?" Obviously, the federal government.

3. In addition, it provides for subsidy for those not in need and thus subjects all recipients to federal controls.

9. "H.R. 6222 clearly embodies the principles repeatedly endorsed by this House."

The foregoing analyses of the content of HR6222 clearly shows that it does not reflect those principles endorsed by this House of Delegates which are vital in preserving ethical medicine in the U.S.A.

For example, it does not preserve:

1. Freedom of choice of patient and physician.
2. Freedom from cost or quality controls by the federal government.
3. Freedom from interference in your right to treat a patient in accordance with the dictates of your own medical judgment and conscience consistent with the ethics of the profession.
4. Freedom to bill the patient directly.
5. Freedom to maintain the concept of fee-for-service.

We are being constantly belabored by the virtues of positivism versus the evils of negativism.

Let me remind you that the oldest and most revered document in the world, The Ten Commandments, has seven negative statements. Let me also remind you that the founding fathers of this country incorporated 52 negative statements in the U.S. Constitution. Homely examples of this principle are that we are against worms because we are for apples, and we are against murder and thievery because we are for life and the protection of property.

We have been told that we need an N.H.I. bill to insure a seat at the conference table.

If the A.M.A. would abandon its support of HR6222 it would attract nationwide attention to the fact that we have carefully re-assessed our position and our opposition to N.H.I. and would insure a front seat at the conference table.

This negativism means that we are for the private practice of medicine, the right to exercise independent judgment, and assures

1. A continuing improvement in the quality of medical care,
2. The freedom of choice for the patient and doctor,
3. A mutual trust between doctor and patient, and
4. Retardation of runaway inflation.

REFERENCE COMMITTEE TESTIMONY ON RESOLUTION #9

Mr. Chairman:

I am Carl Cornelius, Delegate from Nebraska, speaking in favor of Resolution #9 submitted by our Delegation. Many of you will remember the reactionary atmosphere which surrounded the election of members of the Board of Trustees a few short years ago with allegations that the Board of Trustees was not responsive to the wishes of the House. A similar reaction is presently brewing with respect to this House of Delegates and the grass roots members of the AMA with respect to its actions on the issue of National Health Insurance. The members back home are asking "How can the AMA be against National Health Insurance and yet sponsor a National Health Insurance proposal of its own." It is this reaction that has resulted in increasing numbers of physicians refusing to join or to continue membership in the AMA.

Have we in this House become so sophisticated and so politically astute that we no longer heed the opinions of the membership? If the Board of Trustees can get some other organization or Legislator to introduce a proposal such as HR6222 — so be it. Then the AMA could objectively testify that it is the least onerous of the National Health Insurance proposals under consideration but it is self defeating for the AMA to posture and testify against National Health Insurance and at the same time support a bill such as HR6222. It's time for us to be consistent in our approach to National Health Insurance. If you firmly believe, as I do, that the National Health Insurance would be a mistake for the American Public, involuntary Servitude for Physicians, and an Economic Disaster for the United States of America, — let's tell it like it is — without compromise. We of the AMA are against National Health Insurance in any and all forms.

I will close with a favorite quotation of mine which says, "The hottest fires in hell are reserved for those who in the face of controversy refuse to take a stand."

HOUSE OF DELEGATES TESTIMONY, ON RESOLUTION #9

Mr. Speaker:

I am Carl Cornelius from Nebraska.

I rise today as I did yesterday at the Reference Committee to suggest that it is inconsistent for the AMA to posture and testify against National Health Insurance and at the same time offer a bill for Comprehensive National Health Care — which in the eyes of the Public, the Congress, and of AMA members back home, is National Health Insurance. Are we Politicians or are we Physicians involved in politics? The proposed changes of 6222 handed out this afternoon make no truly substantive changes, but to use the words of Congressman Roy of last Saturday's — IRBS session — "only sweetens the medicine so it will go down easier."

Let us consider what happens if IIR6222 actually becomes law.

- I. A comprehensive National Health Care System has become a reality.

The war has been lost — only the terms of surrender, the AMA Guidelines, are less onerous than those of other proposals such as the Kennedy-Corman bill. Conditional Surrender if you will.

- II. The inexorable machinery of NHI is in fact set in motion and with a dose or two of "Tincture of Congressional Ethics" it becomes compulsory.

- III. The Federal Government has an investment and thus a responsibility for the medical care of each and every citizen of our country and will respond in exercising that responsibility by increasing regulation based primarily on cost containment — the only portion of medical care that Legislators can fully understand.

- IV. The mechanism is in place and a series of simple amendments replace the role of the private sector by a burgeoning Bureaucracy.

- V. Have we indeed preserved the freedom and the rights of physicians and patients in a truly voluntary pluralistic system? The answer is a resounding NO! HR6222 provides that insurance companies who are to participate in this program must be **qualified**. You and I know that the freedom of choice both of patients and of Physicians is not nearly as important a principle to Bureaucrats and Insurance Companies as it is to Doctors of Medicine. Through the use of the "qualifying" requirements for insurance carriers, government can virtually totally regiment the practice of Medicine and result in chaos in the delivery system in some parts of the country.

It is not reasonable to think that prerequisites such as these might pertain:

1. Medical service must be obtained within 20 miles of patient's place of residence - if such service is available - "if the physician is to be paid for his service."
2. Only Federal Approved Surgeons may perform surgical procedures of complexity in excess of incision and drainage of simple abscesses — "if the physician is to be paid for services."
3. Only Federally Certified Cardiologists may take and interpret electrocardiograms — "if the physician is to be paid for his service."

4. Only Federally Certified Departments of Radiology may take and interpret chest xrays — "if the physician is to be paid for his service."
5. Only Federally Certified physicians by virtue of X number of hours of Continuing Medical Education may care for members receiving care under this program — "if the physician is to be paid for his service."

Prerequisites such as these are in fact in use in programs in European countries today.

The key words are evident — "if the physician is to be paid for his service." I would hope that we are not too naive to realize that this can happen. Medicine's biggest problems began when it began to depend on third party payment mechanisms — assignments if you will, and such assignments are implicit in this bill. There is no tomorrow for free medicine. If you must get someone else to sponsor this legislation — do it.

If you honestly believe that Conditional Surrender is more honorable than facing the possibility of defeat because you refused to compromise principle — then you should surely support reintroduction of HR6222.

Respectfully submitted,
JOHN R. SCHENKEN, M.D.
Delegate to the A.M.A.

REPORT OF THE NEBRASKA MEDICAL FOUNDATION, INC.

With this report, the Nebraska Medical Foundation begins its twenty-ninth year of operation. The original thrust was financial assistance to medical students and under this program, the Foundation provided funds on a dollar to dollar basis. Loans were negotiated between the Foundation and the student.

In 1964, the Foundation recognized an expanding demand for financial support of the medical students at both schools and subsequently developed the expanded program in March of 1964. Upon the completion of twelve years of experience with the expanded student loan program, it is safe to say this has been a most successful activity of the Foundation. Hundreds of students from both schools have received assistance and allowed them to complete their medical training. Even though the Foundation has experienced default of a few loans, the over all program has progressed smoothly in the repayment program. Currently the Foundation continues to provide loan funds and there are adequate reserves to meet anticipated demands in the foreseeable future. We continue to receive fine support from the members via dues statements, plus funds coming from our faithful and supportive Auxiliary. Their support has been invaluable and the appreciation of the Foundation is sincerely expressed.

Our contributions for the past year amounted to \$7,369, and the total loans since 1964 have reached \$1,247,930.

For a number of years, the Foundation has received contributions which have been designated for research primarily in heart and cancer. In 1976, the Board of Directors of the Foundation approved development of a scholarship program for students at the two schools for the purpose of utilizing accumulated research funds.

At this meeting, we are pleased to announce that a student scholarship program will be initiated. Those students awarded the scholarship will carry out a research program and submit a written report of their

completed project. Appropriate publication of the research report will be made by the NMA. The scholarship is in the amount of \$1,000 per student who will receive one-half of this amount at the beginning of the project and the remaining one-half upon completion and submission of the report.

The Foundation is both pleased and excited about the addition of this new program and hopes that both Association and Auxiliary members will assist us in expanding the number of scholarship awards in the coming years. We sincerely hope and urge you to make contributions to the scholarship program in addition to your contributions for student loans.

Each of these programs play an important role in the education of medical students and demonstrates the interest and dedication of organized medicine to this endeavor.

Respectfully submitted,
LOUIS J. GOGELA, M.D.
President

REQUESTS FOR LIFE MEMBERSHIP

ADAMS COUNTY MEDICAL SOCIETY

J. A. McMillan, M.D., Hastings
Don E. Murray, M.D., Gibbon

DAWSON COUNTY MEDICAL SOCIETY

V. D. Norall, M.D., Lexington

GAGE COUNTY MEDICAL SOCIETY

R. Brown, M.D., Beatrice

GREATER OMAHA MEDICAL SOCIETY

George T. Alliband, M.D., Omaha
Joseph J. Borghoff, M.D., Omaha
D. Arnold Dowell, M.D., Omaha
Charles W. McLaughlin, Jr., M.D., Omaha
J. Milton Margolin, M.D., Omaha
W. Howard Morrison, M.D., Omaha
Peyton T. Pratt, M.D., Omaha

LANCASTER COUNTY MEDICAL SOCIETY

R. O. Garlinghouse, M.D., Lincoln
Richard W. Gray, M.D., Lincoln

MADISON COUNTY MEDICAL SOCIETY

H. S. Tennant, M.D., Stanton

OTOE COUNTY MEDICAL SOCIETY

C. R. Williams, M.D., Syracuse

SEWARD COUNTY MEDICAL SOCIETY

James W. Carr, M.D., Seward

SOUTH CENTRAL COUNTY MEDICAL SOCIETY

Paul A. Reed, M.D., Deshler

REPORT OF THE UNIVERSITY OF NEBRASKA COLLEGE OF MEDICINE

The College of Medicine and the School of Allied Health Professions together enroll 1,080 students.

The College of Medicine is committed to five missions

1. To provide a preparatory education in medical science and in selected allied health professions for qualifying students;
2. To supervise graduate education in all areas of medical science;
3. To share biomedical knowledge and skills with health professionals and communities in Nebraska;
4. To conduct a model of health care blending scientific excellence with human concern; and

5. Through research to investigate problems confronting all facets of medicine.

The quality of the students in the College of Medicine can be measured in several ways and the outcome of each speaks well for the young people entering medical education. Scores on the nationally standardized entrance examinations show an upward trend in recent years and compare favorably with students nationwide. Our students generally have ranked in the seventieth percentile range in Part I of the National Board exams, taken after completion of basic science courses. They have ranked in the sixtieth percentile range on Part II of the exams, taken near the completion of their clinical studies.

The enrollments in the College of Medicine will show an increase in medical students in the next few years. This reflects the plans of the College to revise the medical curriculum from a three-year course of study with a four-year option to predominantly a four-year course. This will result in an increase in the total number of students enrolled, although the entering and graduating classes will remain essentially the same.

A part of the College of Medicine is the School of Allied Health Professions, created five years ago with an enrollment of 114 students in six programs. Today the enrollment is 198 students in 11 educational programs, such as physician assistants, physical therapy, health administration, the technology programs and others.

The quality of the students is demonstrated by performance on board examinations of their professions. As examples, the average board scores of Physical Therapy students place them at or above the upper 80th percentile nationally; students in Nuclear Medicine Technology, Radiation Therapy Technology, and Medical Technology programs rank in the 75th to 85th percentile nationally.

The School accepts students from across the state, and approximately 80% of its graduates have remained in the state. Virtually all students who receive their M.D. degree now enter a residency program, ranging in length from three to six years or more. It is in the residency programs where the College of Medicine has experienced its greatest growth, and it is from the residency programs that the graduate goes into practice. Legislation passed several years ago enabled an expansion of primary care residencies, particularly family practice, in response to the manpower needs of the state. We will be graduating some 80 physicians a year from residency programs.

The College of Medicine recently was awarded a full four-year accreditation. We believe the quality of our medical faculty is high and must be to meet the teaching and service demands placed upon them. The opening of the Ambulatorium is scheduled this summer to meet the increased number of patient visits and students.

Let me comment on the subject of physician manpower shortages in Nebraska, our track record in this area, and what I see as trends. Over one-half of physicians practicing in Nebraska are graduates of the UNCM, and about one-half of all graduates are presently located in Nebraska. It has been stated publicly that in the past 15 years, 488 of our graduates have remained in Nebraska to practice. That is a substantial contribution, though it represents about one-third of our total graduates. Distorting that figure, however, is the fact that it includes graduates of the

past five years, many of whom are still in residency training, in military or public health service or taking advanced study — that is, they have not yet gone into practice.

Our surveys show that in the past five years, 127 of the 313 graduates of our residency programs are now practicing in the state, a 40% retention rate. We hope to do even better, and some will yet return after further training, and finishing obligations in the military and public health services. As more residents are completing their educational program here, more communities outside Omaha and Lincoln are getting more physicians. Of the 12 family practice residents who will complete their education in July, 10 plan to practice in the state. An especially encouraging trend is that other specialists are now beginning to locate in the medium-sized communities in the state.

Certainly, there are needs for physicians in rural Nebraska and the coordination of efforts by the Nebraska Medical Association, the Nebraska Health Manpower Referral Service, the Department of Public Health, the Executive and Legislative branches of the state and especially communities in the state with the College of Medicine is essential. All should consider appropriately the problem itself, the common data base necessary to address the problem and efforts of a positive nature to solve the problem. The College of Medicine will cooperate and contribute to the solution of this problem in concert with other institutions, with all physicians, with communities and the people of the State of Nebraska.

Planning continues in our efforts to improve and update the goals of the College of Medicine. The next phase which is essential to our planning process is the identification of the priorities and sequences which must be addressed during the coming year. In a period when resources are limited, the necessity for clarity about both long and short term goals and objectives of the College of Medicine is more critical. It is in this context that we solicit information and advice during the coming months.

Respectfully submitted,
PERRY D. RIGBY, M.D.
Dean

REPORT OF INTERIM CHANCELLOR, UNIVERSITY OF NEBRASKA MEDICAL CENTER

I am pleased to make a brief report to you as Interim Chancellor of the University of Nebraska Medical Center. Dean Perry Rigby will relate major developments in the College of Medicine; therefore, I will touch on developments in the other colleges and address a few issues that impact the Medical Center as a whole.

Subject to some key decisions of state government, enrollments at the Medical Center this coming year should surpass two thousand. That total includes 683 in our nursing programs on both the Omaha and Lincoln campus; 220 in the College of Pharmacy; 220 graduate students; and 469 medical students; 312 house officers or residents; and 246 students in our allied health education programs.

The College of Pharmacy is almost fully converted to the Doctor of Pharmacy Degree program. As you know the College moved into its new building on the campus last fall.

The College of Nursing has started a cooperative program with colleges at Scottsbluff, Chadron and

Kearney to offer baccalaureate degree programs for registered nurses in those areas.

The School of Allied Health Professions now offers educational programs for medical technologists, nurse anesthetists, physical therapists, physician's assistants, radiologic technologists, nuclear medicine technologists, biomedical communicators, radiation therapists and health services administrators.

Physically the most noticeable change on campus is the new Ambulatorium connected to the west side of University Hospital which is scheduled to be completed in August.

Much of our effort this spring has been directed toward restoring certain funds initially omitted in both the Governor's and Appropriations Committee recommended budgets. Primarily they are funds to replace federal dollars which have been financing basic educational programs in all three colleges. An example of potential impact: If some \$265,000 in nursing funds are not restored, we would be forced to phase out our nursing education program in Lincoln.

Most severely impacted is the College of Medicine, where a potential loss of around one million dollars will surely result in a reduction in quality and most probably will result in some cuts in the size of some programs and elimination of others. The outcome of these debates is of major importance to the Medical Center.

Also from the Governor's Office and endorsed by the Legislature has emerged a Commission on Rural Health Manpower. We have some concerns with the language contained in the bill creating the Commission. Obviously the Medical Center welcomes a thoughtful study of health manpower needs in Nebraska. Obviously, too, we are willing to cooperate in any such study.

What gives us concern are several sections which state that the Commission has the power to:

1. Provide assistance and advice in the development and continuation of a selection process to be used to select students to be trained in the various areas of medical care;
2. To provide assistance and advice on development of a curriculum to be taught to students;
3. To provide information and assistance in determining the number and type of internships and residencies which should be provided in the area of total health;
4. To provide information as to the number and type of teachers and instructors needed.

I believe you can understand from those statements our concerns. The Medical Center has shared these concerns with your President and others in the State Association. We have asked that when the time comes to appoint members to the Commission that the State Association be represented. By definition contained in the bill, neither the Medical Association nor the Medical Center will be represented on the Commission.

Finally, as all of you know, Dr. Neal Vanselow will become Chancellor of the Medical Center on July 1. Having met him several times and having discussed with him some of the major issues in medicine today, I can without equivocation commend him to you.

Dr. Vanselow, as you may know, is an internist with a Certificate in Allergy. He is a graduate of the University of Michigan Medical School where he was a member of the faculty and held a number of academic

administrative positions before becoming Dean of the Arizona College of Medicine in 1974. Dr. Vanselow has been active in community and medical society affairs. He served as president of the County Medical Society in Michigan just before leaving for Arizona.

I believe you will find him an understanding colleague, and I know he looks forward to meeting the professionals in health care in Nebraska.

Respectfully submitted,
HARRY W. McFADDEN, JR., M.D.
Interim Chancellor

REPORT OF THE CREIGHTON UNIVERSITY SCHOOL OF MEDICINE

I hope you will forgive me if some of my comments overlap with my last report to the Fall Session of this body. I tend to think of this report as a kind of "Annual Report" to summarize the significant developments since your last Annual meeting. It is an opportunity that gives me pleasure, both as a chance to bring you up to date on what is happening, as well as a chance for you to show your interest in the School.

Anyone viewing the Creighton campus during the past year could not fail to notice that the most significant changes at Creighton have been in the physical facilities area. The new Bio-Information Center housing the library of the Health Sciences, the Learning Resources Center, and Biomedical Communications is now virtually complete except for some interior furnishings, and we anticipate occupying the facility shortly after the close of the academic year in mid-May. This facility, located between the North Freeway and the Boyne School of Dental Science will serve the informational needs of the students in medicine, dentistry, pharmacy, and nursing as well as the faculties and staff located on both sides of the Health Sciences campus. The new teaching hospital, owned and operated by the Omaha Regional Health Care Corporation, is also nearly 90% complete. While no official moving date has been publicly announced, we anticipate being able to occupy both the hospital and the adjoining Health Professions Center before the end of 1977. The latter facility, an integral part of the construction project, will house the clinical faculty of the School of Medicine and be the major site for the ambulatory program of the School and its faculty. With these developments, I can confirm earlier reports that the capital development program of the School is virtually complete and our facility needs should occupy extremely low priority for the next decade or more.

I am certain most of you can appreciate that, with this development, we will enter into a new phase in our relationships with Creighton Memorial St. Joseph Hospital, the other institutions that assist us in our educational programs, and the community. As a consequence, a faculty committee has been constituted to assess the relationship of the clinical faculty to these entities and to recommend and implement modifications in the clinical practice plan of the School. This committee, which functions essentially as a quasi board of directors for the clinical faculty, is currently engaged in evaluating the contributions and needs of the clinical departments in the conduct of their educational and service programs.

As previously reported, the 1976-77 freshman class just completing the first year of the medical education program included more Nebraska residents than any

other entering class in the preceding ten years. Twenty nine of the 110 students were from Nebraska and 19 from Wyoming. While the composition of the 1977-78 entering class has not yet been finally determined, it is likely that this trend which solidly establishes Creighton as a regional resource to the Midlands area will continue. One factor of potential significance is that the 1977-78 entering class will be drawn from a slightly smaller pool of applicants than was the preceding class. For the first time in ten years, the number of applicants for admission declined slightly, from 8,269 in 1976 to just over 7,600 in 1977. No apparent reason for this modest decline has yet been identified, nor do we know whether or not this is the beginning of a pattern for the future.

The 109 new physicians that will graduate next month will, as is necessary in this state, complete their formal training in widely scattered locations throughout the country. As a class, the graduates were quite successful in obtaining postgraduate appointments in desired programs with about 85% of those participating in the National Intern and Resident Matching Program securing one of their top three choices. 21 of the graduates will continue their specialty training in Nebraska, 19 in the Creighton University affiliated programs, and 2 at the University of Nebraska Medical Center. For future graduates, we will have at least two new programs to offer in subsequent years. We are pleased that approval has been received for residency training in orthopedic surgery and child psychiatry to supplement the dozen programs already available.

It is at this point that I should again express my pleasure with the strong, cooperative relationships that have been developed with the University of Nebraska Medical Center, and particularly the joint programs in Dermatology and Neurology. I am certain my colleagues from the University of Nebraska Medical Center would agree that these and future cooperative programs are extremely important where a scarcity of resources characterizes both of the schools. These programs and other cooperative efforts sponsored by the Creighton-Nebraska University Health Foundation indicate that this organization is a significant instrument in not only developing cooperative programs but in the sharing of information and avoidance of duplicative or competitive effort.

Our continuing education activities for physicians, nurses, and allied health personnel continue to expand to fulfill a need that is becoming increasingly obvious in this period of societal change. Again, these programs are planned with active representation from the University of Nebraska Medical Center to avoid wasteful duplicative effort. We are indeed indebted greatly to the American Medical Association's Education and Research Foundation for continuing financial support that permits us to underwrite a part of the costs of this important activity of the School.

This prompts me also to recognize and express our appreciation to the Nebraska Medical Foundation for the newly instituted student research fellowship program that we hope will serve to stimulate an interest in at least a few of our students in combining careers in medicine and research.

Seven months ago I reported to you that "our pride in the quality and progress of our programs has been considerably clouded by emerging critical financial concerns." I am pleased to be able to report that we have apparently weathered the immediate and acute crises generated by the abrupt reduction in federal

support of operating programs. We have every reason to believe that our budget projections for 1977-78 are on target and that our immediate and future dependence upon the vagaries of shifting political winds in Washington has been markedly reduced. Obviously, this has not been accomplished without some sacrifice. Among those who will feel the effects now and in the future are the students who will be faced with ever increasing tuition rates and an increasing share of the cost of medical education. Tuition for the 1977-78 fiscal year will be \$4910, an increase of \$600 over the current year. This is still, however, far below the projections recently announced by a number of private schools, including rates in the range of \$10,000 per year by two eastern schools.

Even so, none of us can be complacent about this development. It is for this reason that we — and we hope you — are interested in the new Health Manpower Legislation finally passed earlier this year and the appropriations which will support it. Of particular interest to all of us is the need to fund student financial assistance programs at a level sufficient to enable students to borrow or otherwise acquire the necessary funds to continue their educations. Failure to provide these kinds of opportunities could materially and negatively affect the profile of the student that can afford a medical education and the physicians that will carry on after us.

It is a pleasure to be able to share with you on this occasion our pride and our concern. While they affect those of us who are administrators of the medical education programs at Creighton most immediately, in the long run they affect all of us as physicians.

Respectfully submitted,
JOSEPH M. HOLTHAUS, M.D.
Dean

REPORT OF THE STATE DEPARTMENT OF HEALTH

It is pleasing to have the opportunity to make this report to the House of Delegates. A number of programs in which our department participates involve practicing physicians in key roles. I would like to briefly mention several of them.

Nebraska's Emergency Medical Services program has developed many strengths over the past three years. Each region of the state has progressed. This program is medically oriented, the care elements are medically directed, and the other elements geared to support medical care. The active participation of so many Nebraska clinicians has been the most important ingredient in developing this capability.

The perinatal program coordinated by Dr. Robert Grant has been activated in twenty-two hospitals in outstate Nebraska. The staff dedication and achievements have been significant. We believe that this attention given to the events of late pregnancy and the neonatal period is well warranted.

Outstate health departments in essentially rural counties are now functioning in Butler, Clay, Red Willow, Dakota, Nemaha, Saunders and Merrick counties. They provide outreach nursing support for physicians with patients in those locations.

We in the State Health Department are most appreciative of the generally high level of immunization against childhood diseases in Nebraska achieved largely through the efforts of practitioners throughout the state. We anticipate that in the near future our

department will have the resources to increase our support of this endeavor. I believe that Nebraska can eliminate the threat of diphtheria, pertussis, measles, poliomyelitis, mumps, and rubella.

Respectfully submitted,
HENRY D. SMITH, M.D.
Director

REPORT OF THE AD-HOC COMMITTEE ON PSRO

Houtz G. Steenburg, M.D., Aurora, Chairman; John H. Bancroft, M.D., Kearney; Allan C. Landers, M.D., Scottsbluff; Donald J. Pavelka, M.D., Omaha; C. Lee Retelsdorf, M.D., Omaha; Carlyle E. Wilson, Jr., M.D., Omaha.

Your PSRO Committee has not held a meeting since the last session of the House of Delegates in the Fall of 1976.

However, we do continue to monitor those PSRO developments to which we are privy.

As of this writing, there are 203 designated PSRO units throughout the country. There are 105 conditional PSROs and 39 planning. 26 new planning contracts are being negotiated leaving 25 areas without PSROs. They are California, Areas 6, 7 and 28; Texas, nine are as pending redesignation; Florida, Areas 4, 6, 7, 8, 9, 10 and 11; Illinois, Areas 7 and 8; Nebraska, statewide; Louisiana, Areas 2, 3 and 4; Michigan, Areas 2 and 9; Georgia, statewide; Minnesota, Area 1 pending redesignation; and New York, Area 16.

The PSRO budget has been set at \$73 million in the line item for PSRO, an increase of \$11 million over last year and \$75 million from Medicare/Medicaid trust fund for review reimbursement. This \$148 million is expected to complete implementation so that by 1979 all hospitals will be doing review.

Hearings have begun this month on HR3, a series of amendments purported to strengthen Medicare and Medicaid programs against fraud and abuse. Among the HR3 provisions affecting the PSRO program is a requirement of the PSROs to do ambulatory review at the request of the Secretary. Also PSROs would be required to provide certain types of data information to assist federal and state agencies investigating cause or patterns of fraud and abuse. In addition, PSROs would be specifically directed to share data information with health planning agencies in the form of aggregate statistics. Thus becoming more nearly an investigative arm of the law enforcement agencies.

So the rules of the game continue to change during the game. If you feel this is one-sided, you are correct. You may recall that HEW promised the AMA they would not disclose physician payments. They did, and when they did, it was more fiction than fact.

We have had some indirect dialogue with the Honorable Thomas Morris who is the Inspector General of the HEW. At this point it is very doubtful he will elect to have Nebraska run a "reverse" PSRO that is punchout length of stays from the various Nebraska hospitals that are on computers. HEW has a budget of some \$146 billion. The PSRO component is a "benign-paltry" \$148 million. Probably not worth the disturbing effort of finding out that PSRO is an unnecessary law.

It would be our hope that through this type of program with the top personnel of HEW, that we might be able to prove that PSRO is indeed an unneeded program in this state, and we might then apply for a rule by exception not to have a PSRO unit.

We have no specific recommendations for the House

other than to seek permission to continue our dialogue with the Honorable Thomas Morris and to continue to watch the local metastasis of PSRO occur at its own unabated rate.

Respectfully submitted,
HOUTZ G. STEENBURG, M.D.
Chairman

REPORT OF THE CONSTITUTION AND BY-LAWS COMMITTEE

J. P. Schlichtemier, M.D., Omaha, Chairman; R. L. Cassel, M.D., Fairbury; Earl J. Dean, M.D., Hastings; John T. McGreer, III, M.D., Lincoln; Harold M. Nordlund, M.D., York; Robert D. Sidner, M.D., Kearney.

The recent reduction from 45 years to 40 years a member must be in practice in order to gain Life Membership has caused some confusion concerning members who might no longer be in practice but be engaged in an administrative or other related capacity.

The Constitution and By-Laws Committee met to clarify the intent (as approved by the House) of this issue and recommends the following wording for Section 5, concerning Life Membership:

Section 5. Life Membership may be granted, upon written request to his component society, to a member in good standing who has been in practice for 40 years, ~~upon written request to his component society, and who has retired from active practice and/or related activities.~~ The recommendation may be made by a two-thirds vote of the Board of Councilors and with the approval of the House of Delegates, ~~and~~ shall be retroactive to the date that Life Membership was first proposed and recommended by the component society.

Life Membership may also be granted in like manner to members in good standing, who, because of illness, disability, or other good cause, are not able to continue the practice of medicine.

A Life Member shall be exempt from payment of dues; may vote and hold office; may participate and attend regular sessions; shall receive all publications; and may become an Active Dues-Exempt Member of the American Medical Association.

Life Membership in any case shall continue only as long as the member is retired from active practice or its related activities and if a Life Member returns to the active practice or its related activities his Life Membership shall terminate upon his resumption of such practice or activities.

The Constitution and By-Laws Committee further recommends that the proposed change, if adopted by the House, be forwarded to all county societies for possible inclusion in their county society's by-laws.

Respectfully submitted,
J. P. SCHLICHTEMIER, M.D.
Chairman

REPORT OF THE COMMITTEE ON HEALTH EDUCATION IN SCHOOLS AND COLLEGES

S. I. Fuenning, M.D., Lincoln, Chairman; Frank O. Hayworth, M.D., Omaha; Clyde L. Kleager, M.D., Hastings; Eileen C. Vautravers, M.D., Lincoln.

This is a progress report of the activities of this committee since the last report which was submitted in October of 1976.

In the last report the Berkeley project, or as it is

now known, the School Health Curriculum Project was identified as an effective health education program for elementary and secondary schools. A pilot project was initiated by Dr. Kerry Redican in the school system of Wahoo. The 6th grade heart unit implemented in Wahoo was well received by students, teachers, and parents. The school administration, as well as board members, have been enthusiastic and fully supportive of the project. The evaluation will consist of measuring the gains in health knowledge and attitudes assessment in the area of cigarette smoking. Cigarette smoking attitudes will be used as a criteria method to determine the effectiveness of the program. Results will be reported in the near future when the study has been completed.

A description of the project and student reactions will be covered in the *Midlands* magazine of the *World Herald* on Sunday, April 17.

The Nebraska Lung Association has contributed \$3,200 for promoting this program throughout Nebraska. The Nebraska Heart Association has contributed \$2,500. Selected Nebraska school districts will be contacted within the next couple of months with respect to sending teachers to a summer session workshop which will be sponsored by the Nebraska Center for Health Education. The workshop will be held on the campus at UN-L. Voluntary health agency monies will be used to purchase the necessary materials for participating districts to implement the cardiovascular unit.

At the present time there are four school health curriculum project units covering grades 4 through 7. Core areas include: digestive system (4th grade), respiratory system (5th grade), cardiovascular system (6th grade), brain and central nervous system (7th grade). In addition to the school health curriculum project units, Kindergarten through third grade health units have been developed by Seattle Public Schools. These units have the same format as the school health curriculum project. Also these units have been tested to determine their effectiveness in terms of knowledge gains and attitude assessment. Between the school health curriculum project and the Seattle model, there now exists a comprehensive health education program designed for grades kindergarten through 7.

Numerous presentations on the school health curriculum project have been made to medical groups within the state by Dr. Kerry Redican, National Trainer and a member of the faculty of the Nebraska Center for Health Education.

This committee has also been studying the health education implications in Public Law 93-641 — National Health Planning and Resources Development Act of 1974. In the committee meeting held on November 17, Dr. William H. Carlyon, Chairman of the Department of Health Education, American Medical Association, was our guest. Since the Health Service Agencies and the State Health Planning Division, State Department of Health, are required to establish a comprehensive health plan for the State of Nebraska, Dr. Carlyon recommended that we provide input in the development of health education standards for the comprehensive health plan. The committee agreed with the recommendation and unanimously agreed to formulate health education standards. These are to be prepared for submission to the NMA House of Delegates in the October meeting. Those standards that are approved by the House of Delegates will be submitted to the Health Service Agencies and the State Health Planning Division for their careful consideration. In preparation

for the development of these health education standards an inventory will be made of identifiable health education program activities in which physicians are involved. This inventory will also be used as a baseline for evaluating future developments in health education programs and their effectiveness.

Since Public Law 93-641 includes health education as one of the priorities, several states have held statewide conferences to consider the health education implications of this law. Dr. William Carlyon recommended that we participate in such a conference in order to have an opportunity for additional input. It is anticipated that there will be a state-wide conference on this matter to be sponsored by the Health Service Agencies, State Health Planning Division of the State Department of Health, and the InterAgency Health Council of which the NMA is a member.

The InterAgency Health Council is planning a Nebraska conference on comprehensive health education scheduled for October 18 and 19, 1977, in Lincoln, Nebraska. Four task forces have been established, and these are as follows: school health education, community health education, patient education, and health education in the workplace. These task forces will assess the present status of health education activities, the needs, and establish recommendations for the further development of health education programs. The conference will also have an opportunity to review the preliminary health education standards that are being developed by the Health Service Agencies and the State Health Planning Division of the Nebraska Department of Health.

In a conference held last fall with Dr. Anne Campbell, State Commissioner of Education, she suggested that the Nebraska Medical Association assume the initiative in helping to coordinate efforts in health education within Nebraska. This is being studied by the committee as to how this can be accomplished most effectively.

The committee noted that a new replacement was appointed for the position of Administrative Consultant for Health and Physical Education for the Nebraska State Department of Health Education. Miss JoAnne Owens, the new appointee since last fall, graduated with a master's degree in physical education. Previously the House of Delegates had recommended that the State Department of Education employ a full-time, qualified health education consultant. The committee recommends this prior position be reaffirmed by the House of Delegates.

The committee reviewed the proposed consumer health education course to be offered through the University of MidAmerica and Nebraska Educational Television Network to be sponsored by the University of Nebraska Medical Center. This consumer health education course will include the implementation of a Health Hazard Appraisal program which identifies the prevailing risk factors and their impact on longevity, morbidity, and mortality. The committee has approved this approach.

The Chairman expresses great appreciation to all members of the Nebraska Medical Association that have provided continuous support of health education in their local area. In addition, I want to express my appreciation to members of the committee for their work in the promotion of health and fitness in the State of Nebraska.

Respectfully submitted,
S. I. FUENNING, M.D.
Chairman

REPORT OF THE MATERNAL AND CHILD HEALTH COMMITTEE

William L. Rumbolz, M.D., Omaha, Chairman; Warren G. Bosley, M.D., Grand Island, Co-Chairman; Dale W. Ebers, M.D., Lincoln; Charles A. Field, M.D., Omaha; L. Palmer Johnson, M.D., Lincoln; Bernie D. Taylor, M.D., North Platte.

The Maternal and Child Health Committee of the Nebraska Medical Association met March 31, 1977 at the Association headquarters. All committee members attended the meeting along with Dr. Robert Grant, Maternal Child Health Director of the Nebraska State Health Department, Dr. Papenfuss and Dr. Lempka.

For information, a report from the Midwest Conference of Maternal Study Committees was presented. This new organization, covering ten upper midwest states, was conceived in an attempt to accumulate increased numbers of maternal deaths from the increased number of total deliveries by combining the several states statistics. This should permit more meaningful statistics for evaluation. Several areas will need clarification before the proposals can be implemented. These include uniform definition of terms, uniform methods of accumulating, storing and retrieving data, and an acceptable method of reporting the data by individual state as well as cumulative. Committees were appointed within the organization to address themselves to these questions. Another meeting of the group is planned for May 27, 1977, to further evaluate the future of the organization.

Two other informational items were discussed. It was suggested that a perinatal mortality report be assembled from the statistics already collected by the Health Department for publication in the Nebraska Medical Journal. No action was taken. It was also suggested that the M.C.H. committee assist and participate in the next program of the Council on Youth. Dr. Bosley offered to pursue this suggestion and offered the help of the M.C.H. committee.

A preliminary report of maternal deaths in Nebraska for 1976 was presented. There were seven deaths in women who were pregnant or who had delivered within the previous three months. One death was felt to be non-obstetric death, two deaths were termed indirect obstetric deaths, and the remaining four deaths were direct obstetric deaths. A final report will be submitted for publication in the Journal.

At the last meeting of the House of Delegates, the M.C.H. committee was directed to submit recommendations for the review of maternal deaths in Nebraska. The following recommendations are submitted for action of the House of Delegates.

A sub-committee of the Maternal Child Health Committee shall be appointed by the M.C.H. committee to review, study, and report maternal deaths occurring in Nebraska.

Information on each maternal death will be obtained by requiring the completion of a questionnaire by the attending physician. Additional pertinent information can be obtained through personal interview with the attending physician and a review of the hospital record with the physician. The personal interview will be carried out by a member of the Maternal Mortality Review sub-committee by a scheduled appointment with the attending physician. Following the review of the questionnaire and the interview, an abstract will be prepared in an anonymous fashion for a maternal mortality report. A copy of this abstract is to be submitted to the attending physician for his agreement before it is finally complete.

A scheduled meeting of the Maternal Mortality Review sub-committee will be held annually in Nebraska, presumably in conjunction with another meeting. The maternal mortality abstracts will be presented for discussion of the entire committee and appropriate consultants as anesthesiologist, internist, pathologist and others. It is hoped this meeting will be an educational endeavor with the participation of the attending physician if he desires. A report from this meeting will be submitted for publication in the Nebraska Medical Journal.

Respectfully submitted,
WILLIAM L. RUMBOLZ, M.D.
Chairman

REPORT OF THE MEDICINE AND RELIGION COMMITTEE

Edward A. Holyoke, Jr., M.D., Ogallala; Chairman; Kenneth C. Bagby, M.D., Blair; John C. Goldner, M.D., Omaha; T. C. Kiekhäfer, M.D., Falls City; John J. Ruffing, Jr., M.D., Hemingford.

The Committee on Medicine and Religion will meet hopefully during the Annual Meeting of the Nebraska Medical Association to discuss ideas for future programs and activities. We will continue to sponsor the Medicine and Religion Dinners at the time of the Annual Meeting of the Association. This year the speaker will be Dr. Ned Cassem of Boston.

Respectfully submitted,
EDWARD A. HOLYOKE, JR., M.D.
Chairman

REPORT OF MENTAL HEALTH & MENTAL RETARDATION COMMITTEE

Charles W. Landgraf, Jr., M.D., Hastings, Chairman; John D. Baldwin, M.D., Lincoln; Merrill T. Eaton, M.D., Omaha; Harry C. Henderson, M.D., Omaha; Thomas H. Murray, M.D., Kearney; Robert G. Osborne, M.D., Lincoln.

Since the committee had no matters brought to its attention with the exception of several legislative bills, the committee's activities consisted of establishing physicians and testifying on behalf of the NMA with respect to these bills.

LB 204 was opposed; this consisted of decriminalizing alcohol intoxication and providing for apprehension and hospitalization of those believed to be intoxicated by a group of lay persons to be organized by the act. Unfortunately the bill advanced to General File as of this report.

LB 397 to transfer Norfolk Regional Center to the Nebraska Veterans Home, thereby destroying it as a mental hospital facility, was opposed and has been indefinitely postponed.

LB 409 to license social workers was opposed and indefinitely postponed.

LB 325 and LB 380 concerning school psychology practice and clinical psychology practice were supported; LB 325 is held in committee and LB 380 is on General File.

LB 501 relating to the extremely troublesome Nebraska Mental Health Commitment Act provides for some constructive change and therefore was supported. This bill is on General File. Very serious problems remain in the Commitment Act and your Chairman has been appointed as NMA representative on the Practices

and Procedures Subcommittee of the Nebraska State Bar Association which subcommittee will, we hope, make recommendations for additional amendments which will be acceptable.

The first meeting of that subcommittee is 21 April 1977; a report of this meeting may be made by your Chairman at some time during the Annual Meeting.

The committee acknowledges the invaluable assistance of the District Branch of the American Psychiatric Association.

Respectfully submitted,
CHARLES W. LANDGRAF, JR., M.D.
Chairman

REPORT OF THE PUBLIC RELATIONS COMMITTEE

Craig R. Nolte, M.D., Lincoln, Chairman; Richard D. Gentry, M.D., Falls City; Dale E. Michels, M.D., Lincoln; John C. Sage, M.D., Omaha; Joseph C. Scott, M.D., Omaha; John C. Wilcox, M.D., Aurora.

During 1976, major public relations activity was focused on public attitude regarding the passage of LB 434. The past several months the committee's efforts have been basically twofold, educational and socio-economic.

A series of nine spot announcements were recorded by Harlan L. Papenfuss, M.D. The subject content included the infant mortality rate in the United States, the supply of physicians, women in medicine, careers in the health care field, costs of health care and nursing home care because of the duplication of inspections, continuing medical education, modern medicine, good health care, and modern medicine's efforts to make better health care available. The tapes were sent all Nebraska radio stations, and the usage was good.

The news releases sent thus far in 1977, have included the subjects of confidentiality of patient medical records; the higher quality of medical care delivered today; the influx of foreign medical school graduates; principles of medical ethics; the favorable attitude of the public towards the U.S. medical care delivery system, as evidenced by many surveys; the Nebraska Medical Foundation, Inc. Student Research Scholarship Program; and educational release material in conjunction with National High Blood Pressure Month.

Releases prior to the Annual Session are also to be mailed and press coverage will be arranged for the session.

A special effort was made to distribute positive news release material about the difference between ophthalmologists and optometrists after it became apparent that a national press release effort for optometrists was having some success in Nebraska. The NEBRASKA FARMER will be running an article we have prepared, and similar material is being distributed in press release form to news media throughout the state.

The committee plans to continue utilizing Association officers to record announcements and to distribute news releases on a biweekly schedule.

The mailing of Health Tips to newspapers, radio stations, and television stations also continues. The subjects included in this public service activity are of a health education nature, presenting basic health information of known interest to the general public. The

clipping service verifies that 96 papers used 1163 Health Tip columns during the past 12 month period. Our annual mail contact with all the media indicates a continuing interest in this program.

We have sent the NMA film "But For The Grace . . ." to thirty schools and groups for their use during the past twelve months.

The public relations effort of the Association remains firm and positive in nature. The committee tries to tell medicine's story in a continual fashion, and input and suggestions for subject content from NMA members is most welcome.

Respectfully submitted,
CRAIG R. NOLTE, M.D.
Chairman

REPORT OF SUBCOMMITTEE ON ATHLETIC INJURIES

John E. Murphy, M.D., Aurora, Chairman; Stanley M. Bach, M.D., Omaha; Robert B. Benthack, M.D., Wayne; Patrick E. Clare, M.D., Lincoln; S. I. Fuenning, M.D., Lincoln; Charles W. Newman, M.D., Lincoln; George Sullivan, RPT, Lincoln; Wayne Wagner, AT, Omaha; John G. Yost, M.D., Hastings.

The Subcommittee on Athletic Injuries has had a productive year with results favorable and complimentary to the Nebraska Medical Association.

We presently are working on a seminar to be presented this fall. We are also updating the guidelines for examinations for both male and female athletes. A complete report will be submitted to the Fall Meeting of the House of Delegates of the Nebraska Medical Association.

Respectfully submitted,
JOHN E. MURPHY, M.D.
Chairman

REPORT OF THE MEDICAL EDUCATION COMMITTEE

John W. Smith, M.D., Omaha, Chairman; James E. Bridges, M.D., Fremont; Wendell L. Fairbanks, M.D., Auburn; Joseph M. Holthaus, M.D., Omaha; Leonard R. Lee, M.D., Lincoln; Perry G. Rigby, M.D., Omaha; Fred J. Rutt, M.D., Hastings; Robert J. Stein, M.D., Lincoln; Larry F. Wilson, M.D., Syracuse; Paul R. Young, M.D., Omaha.

As instructed by the NMA House of Delegates, your Medical Education Committee has again surveyed the various specialty organizations within the State of Nebraska. The majority of specialties at this time do not have a requirement for continuing medical education; however a few such organizations do have a requirement. The pioneer in this group was the American Academy of Family Practice. Those other few specialty societies which have requirements correspond closely to the requirement for the Physicians Recognition Award of the AMA.

The committee felt that the proper guidelines for our members at this time should be as follows: 1) The NMA recommends that each physician actively participate in continuing medical education on a voluntary basis. 2) We recommend that our member physicians meet the continuing medical education requirements of their individual national specialty society. In the event that a physician does not belong to a specialty group or one which has continuing medical education guidelines or requirements, then the physician should meet the requirements for the AMA's Physician Recognition Award. 3) Any physician meeting any of the above guidelines would then be recognized as meeting the

Nebraska Medical Association requirements for continuing medical education. A seal of the Association is available to affix to the AMA Physicians Recognition Award certificate. The AMA plans to automatically place this on certificates coming to Nebraska in the future.

In the past year, the education committee has surveyed two institutions and granted CME accreditation to them. The third survey is scheduled for the scientific sessions of the NMA annual meeting and will be carried out during the meeting. The Medical Education Committee is willing to provide consultation and help to any institution or organization that is interested in putting on programs which would qualify for Category I credit.

The continuing medical education recordkeeping mechanism using automatic data processing has further been improved so that the printout form corresponds very closely to that required by the AMA for its Physicians Recognition Award. When the House of Delegates feels that this recordkeeping mechanism should be available to the members, a separate committee should be appointed to determine how to contract for this service and how to best pay for it.

Respectfully submitted,
JOHN W. SMITH, M.D.
Chairman

COMBINED REPORT OF THE MEDICOLEGAL ADVICE COMMITTEE AND AD-HOC LEGAL COMMITTEE

James H. Dunlap, M.D., Norfolk, Chairman; W. O. Brown, M.D., Scottsbluff; John P. Gilligan, M.D., Nebraska City; Arnold W. Lempka, M.D., Omaha; Harlan L. Papenfuss, M.D., Lincoln; Paul Goetowski, M.D., Lincoln; Clarence A. McWhorter, M.D., Omaha; John W. Porter, M.D., Beatrice; Robert W. Waters, M.D., O'Neill.

Your committees have met in combination with each other to further the efforts of the Nebraska Medical Association in pursuing various problems. At the moment these appear to be three in number.

1. Various individual physician malpractice actions are in progress because of the singularly delicate and confidential nature of these problems. Your Chairman has consulted with several involved parties in attempting to hasten satisfactory resolution of the issues.

From time to time reports will be made to the House of Delegates regarding the general nature of the causes of action in malpractice litigation in Nebraska.

2. Research and planning countersuit activity is in progress. This is a most difficult problem and must be approached from a practical rather than an emotional basis. A few successful countersuit cases have been reported in various states. These have been few and far between and have been decided upon unique circumstances. In no cases have appealed decisions from the lower court decisions been reached. Whether the successful countersuit lower court decisions will be upheld remains to be seen.

Your committee awaits the further report of legal counsel regarding research into possible causes for countersuit action in our state. We will further consider the potential for additional statutory development of new causes of action. At the moment the only apparent cause of action for legal

redress under Nebraska statute would be for malicious prosecution.

While progress in this field will be slow and our current state of knowledge is meager, we stand ready to offer counsel to such NMA members as feel that our experience might benefit them.

3. In addendum to this report is a brochure developed for use as an educational item for NMA members. It is our feeling that this material can be of benefit to the "embattled physician." It is our plan to furnish this to our members collectively and further to resubmit this to individual members as they face malpractice litigation.

Respectfully submitted,
JAMES H. DUNLAP, M.D.
Chairman

REPORT OF THE HEALTH PLANNING COMMITTEE

F. H. Hathaway, M.D., Lincoln, Chairman; Stuart D. Campbell, M.D., Scottsbluff; James G. Carlson, M.D., Verdigris; Carl J. Cornelius, Jr., M.D., Sidney; James E. Ramsay, M.D., Atkinson; Stanley M. Truhlsen, M.D., Omaha.

For the past two years the Health Planning Committee has been concerned primarily with matters relating to health manpower planning in Nebraska. Your Chairman served as a member of the State Health Manpower Planning Committee, a subcommittee of the State Health Department's Comprehensive Health Division. This committee, composed of representatives of the Legislature, Health and Allied Health Professions, their professional schools, and other educational institutions, was charged with formulating a Nebraska Health Manpower Plan for the State Health Planning Council as a resource and for implementation as deemed necessary.

The State Health Manpower Committee met at regular intervals during the past two years and as plans and concepts were finalized this material was supplied to the members of the N.M.A. Health Planning Committee for review and comment. As the draft of **THE 1976 NEBRASKA HEALTH MANPOWER PLAN** approached its final form, representatives of the N.M.A. Health Planning Committee and other members of the N.M.A., knowledgeable in this area, examined and discussed this document in some depth with members of the State Health Department's Division of Comprehensive Health Planning. As a result of this meeting the representatives of the N.M.A. and Health Planning Committee responded with the following observations which are a part of this report.

OBSERVATIONS OF THE NEBRASKA MEDICAL ASSOCIATION ON THE PRELIMINARY DRAFT OF THE NEBRASKA HEALTH MANPOWER PLAN

Representatives of the Nebraska Medical Association have studied the draft of the Nebraska Health Manpower Plan in greater depth and in addition, had a meeting in December, 1976, with representatives of the Bureau of Comprehensive Health Planning, a division of the State Department of Health. At this meeting, there was an interchange of ideas and comments.

The Nebraska Medical Association supports that portion of the preliminary draft of the Nebraska Health Manpower Plan which focuses on aiding communities in attracting physicians through such things as conducting

economic feasibility studies, forming cooperative arrangements between various communities to attract physicians to serve an area, and so forth.

The Nebraska Medical Association again commends the State Health Manpower Planning Committee for their time and effort and considerable work in bringing the Manpower Plan to its present level. We find much of value in the Plan. However, there are some concerns regarding those portions of the Manpower Plan that deal more specifically with physicians, and these will be addressed in greater detail as follows.

We seriously questioned the productivity studies as carried in the Plan. The study is based on a national model of productivity, and we question its accuracy whether applied on the national level or state level as has been the case here in Nebraska.

It is difficult to apply a national model to any rural state. When the study expresses the opinion that there are too many general practitioners in the panhandle area of the state and expresses the need for specialists, it must be remembered the model is based on methods of practice dissimilar to rural Nebraska where there may be a substantial variance in practice methods. The general practitioner in rural Nebraska performs major surgical procedures, cares for fractures, and provides obstetrical care, while in urban areas these services are most often performed by specialists.

The problems encountered in determining productivity of the average physician is immediately apparent when one is aware of the great diversity in various types of practice (Solo-Group-Hospital-Industrial-Government-etc.). Other factors are geographical, urban or rural settings, age, sex, and the motivation of individuals. Nothing would reduce productivity more than abandoning voluntarism and/or free choice of practice sites by the physician as has been suggested in some sectors. Certainly, the nature of Nebraska does not lend itself to a formula useful in more compact and highly populated areas.

The manpower information projecting requirements may be accurate when considered on a state-wide basis. The statistics and the study itself become less valid as the data is reduced to cover health planning districts, and when applied to the economic model concept, additional credibility is lost. When the data is reduced to an individual group, such as one of the allied health groups, the validity of the data can be questioned even further.

An example of the questionability of the model used appears in the case of the proposed necessity for additional anesthesiologists in southeast Nebraska. Concern must first be given to whether or not the area can economically support additional anesthesiologists, or whether the service is and should be provided by the nurse anesthetist. The model might be accurate in an area where all anesthesia is provided by anesthesiologists, however it fails in an area where the nurse anesthetist is employed by the hospital or as the agent of a physician and is providing this service.

Further, regarding the reported shortage of anesthesiologists in southeast Nebraska, it should be pointed out that this is not actually a shortage inasmuch as there is probably a sufficient number of nurse anesthetists and this service is adequately being provided. The nurse anesthetist acts under the delegatory authority of the physician in the institution doing the surgical procedure at the time. It should also be remembered that any physician, duly licensed, can provide any service, including anesthesia.

Appendix B, indicates that in sub-area 4, in the northern area, there is a manpower requirement of over nine anesthesiologists and a necessity for six additional pathologists. It must be pointed out that there is not a hospital in the State of Nebraska that is not visited by a pathologist, at least monthly, and in most cases, the consulting pathologist visits the hospital two and three times a week. The laboratory and pathology services are provided on the basis of need and the demand in the area. The Medicare and Medicaid programs require that in order for a hospital to be reimbursed for care given patients under these programs these specific services must be provided. They are being provided state-wide. The indicated shortage of some 24 anesthesiologists, pathologists and radiologists in the northern sector of the state is grossly inaccurate.

The Plan indicates the need for a service based on a fractional full-time equivalent in some areas of the state. The indicated need may well be met by the specialist who spends portions of his time in several different communities. The fractional measurement of need would seem to indicate, in many cases, it is not practical or economically feasible for a given specialist to locate in only one community.

The Plan also omits the fact that many family practitioners have obtained additional training in various specialized areas, and their care, as a general or family practitioner, would include provision of these types of services, while the identity of their activity is still that of family practice. Specialty practices might also include the provision of some services not routinely or specifically related to the individual's specialty designation. One would also find that the specialist located in a metropolitan area would probably limit his practice to a greater degree than would a specialist practicing in a non-metropolitan area.

A definition of the "scope of practice" of a physician is probably very limiting, and this being the case, such a definition is probably highly inaccurate unless the definition is being applied to a specialist who has chosen to greatly restrict his practice. A model such as this must consider that a physician is a "physician" first and a specialist second.

When considering the need for various types of specialty care in areas of the state, the Plan has one serious restriction in that it only considers physician resources within state boundaries. When an analysis is made of referral patterns, it is very evident that patients are referred across state lines for various types of care, and in many instances, the distance traveled by the patient is not inconvenient in that the individual probably travels to that same community for some services not available in his home environment. The model should have been more accurately tested in the panhandle and northern areas of the state in this regard. The accessibility of service is determined not only by the number of physicians located in an area, but the availability of specific services whether rendered in the community or in an adjacent area.

We would strongly urge that when statistics are developed, they must be related back to the area to establish authenticity and to provide true validation. The NMA maintains some statistical data and stands ready to be a resource to the Department of Health and to cooperate in any way possible.

It is our opinion that when maps and charts are prepared in plans such as this, far more accuracy and validity could be accomplished by presenting data

which provides for a numerical range of statistical information rather than specific numerical values. A range can present a more accurate presentation of a situation and allow for some change to take place without destroying the validity of the statistical matter.

We are always faced with cost containment versus quality of care, and it would be of value to note what fulfillment of the recommendations in this Manpower Plan would do to the cost of health care in the State of Nebraska. Economic impact of a plan such as this must be considered.

Cost containment, when applied to the Manpower Plan, becomes a very important factor when one looks, for instance, at the projected requirement for nurses as proposed in the Plan. One might ask whether this is an ideal level of increase or a necessary increase.

The Nebraska Medical Association is very concerned about the economic impact of fulfilling the manpower requirements as listed in the Plan, without additional analysis of the current situation and a thorough study of referral patterns, the coverage provided by radiologists, pathologists, anesthesiologists, and other features of the medical care system in the State of Nebraska.

The primary concern of the Nebraska Medical Association is quality care, and this being the case, we are concerned about the trend of delegating responsibility for care to allied health personnel in a number of areas without physician supervision.

The NMA is concerned about the desire for an expanded role in the health care team by such groups as the new clinically oriented pharmacist. Physicians carry the primary responsibility for the delivery of quality health care. Allied health personnel and physician extenders should work under the supervision of physicians and have access to their back-up capabilities. Lay groups and planning agencies do not always understand precisely the nature of health care and how it is best delivered. The increasing fragmentation of health care by various disciplines will ultimately reduce the quality of health care and indeed may result in disastrous consequences in some instances, as we are painfully aware. It should go without saying that those groups working in the health area who are not qualified, and working on the periphery of the medical care delivery system, have the potential of doing considerable harm both to the consumer and the health system.

We also question whether information on chiropractic should be included in a health manpower study. We recognize that because of the government funding supplied for this study chiropractic must be included; however, we cannot condone this concept. With everyone, including the Federal Government, seeming to focus more attention on the quality of medical care, it would appear incongruous for a manpower plan such as this to include information on such areas as chiropractic.

The NMA suggests the Preface or Executive Comment portion of the document carry information indicating that various methodologies were used to develop the statistics carried in the document, and the various methods should be understood when considering the various statistical data in relation to the narrative. This section should also specify that the

numerical data in the tables is not absolute, it is only relative. There is a major difference between need and convenience when considering manpower. This is true whether considering medical manpower or manpower relating to other professions.

If the ongoing health planning activities by the Health System Agencies, insofar as the delivery of health care by physicians is concerned, is to meet with any degree of success, there must be increased physician input at all levels of this new health planning structure. Each area should have some representation by physicians who are considered by the NMA to have some knowledge in this area. The Association stands ready to be helpful in this regard. Fourteen to eighteen years (and sometimes more) of rather intensive training for the practice of medicine and delivery of medical care plus careful control of licensing procedures should place the physician in a position of understanding the need for and delivery of quality health care.

The Nebraska Medical Association and its Health Planning Committee are available to the State Department of Health as a resource and consulting body when questions regarding physician manpower are being considered. The NMA and its committees can be consulted at any time for the expertise and information the Association is able to provide.

The Association has for several years maintained a study which specifically shows there is a direct correlation between population figures in a county and the number of physicians located in the county. As of December 28, 1976, there are 556 practicing physicians in out-state Nebraska. It is interesting to note that between December, 1972, and December, 1976, a four-year period, there are 80 towns from which physicians have moved, retired, or died. During the same four-year period, 22 communities had a loss of physician manpower with no new physicians coming in; 20 communities gained physicians; 27 communities gained some physicians, but had a net loss over the period; and 19 communities remained even in that they attracted as many new physicians as left during the period.

In determining the reasons for physician movement out of an area, it is interesting to note that census figures (between 1950 and 1970) indicate that 70 counties experienced a decrease in population totaling 137,739. Twenty-three of Nebraska's 93 counties gained population during the same period. Physician movement correlates with the change in population.

What effect these observations may have on the final document remains to be seen. Medical input into the health planning process to a large degree will depend on physician involvement at all levels in the Health Planning Agencies if they continue as viable entities. We recommend physician involvement in the planning process at all levels.

The final draft of THE 1976 NEBRASKA HEALTH MANPOWER PLAN may not be available by May, 1977, but a preliminary draft and possibly an EXECUTIVE SUMMARY should be available.

Respectfully submitted,
F. H. HATHAWAY, M.D.
Chairman

REPORT OF THE MEMBERSHIP COMMITTEE

Roger P. Massie, M.D., Plainview, Chairman; Alvin A. Armstrong, M.D., Scottsbluff; K. B. Carstens, M.D., Fairbury; Klemens E. Gustafson, M.D., Beatrice; James K. Styner, M.D., Lincoln; John D. Woodbury, M.D., Omaha.

The House of Delegates directed the Membership Committee continue its efforts of soliciting additional members in the NMA and AMA.

Two activities have taken place in an effort to increase Association membership. In December, Harlan L. Papenfuss, M.D., NMA President, sent a personal letter to each Nebraska physician not currently a member of the Association along with a newly developed membership application form. Approximately 240 letters were sent. Thirty-seven application forms were returned. The Association has 75 new members to date in 1977.

Additionally, all out-state county medical societies were contacted and provided a list of physicians not currently members of the Association. If the county medical society had asked the Association to bill its membership, the county medical society was asked for permission to solicit the current non-members. In all cases, the permission was granted. Those county medical societies which carry out their own billing mechanism were supplied ample billing forms to use if they so desired.

The efforts of the committee have been worthwhile, and we plan to carry out further membership solicitation activities in future months. We appreciate the time and effort expended by Doctor Papenfuss and the effort of county medical society officers in their membership solicitation activities.

Respectfully submitted,
ROGER P. MASSIE, M.D.
Chairman

REPORT OF THE AD-HOC COMMITTEE ON FEDERAL LEGISLATION

Jerald R. Schenken, M.D., Omaha, Chairman; C. J. Cornelius, Jr., M.D., Sidney; Louis J. Gogela, M.D., Lincoln; Harold R. Horn, M.D., Lincoln; Donald F. Prince, M.D., Minden; Gerald J. Spethman, M.D., Lincoln.

Your committee has met on several occasions since its last report to the House and has reviewed numerous legislative proposals introduced in the United States Congress. In this report your committee is recommending action via resolutions on several bills currently before Congress.

Medicare/Medicaid Amendments of 1976 — These amendments introduced by Senator Talmadge in 1976 did not receive action by the Congress due to the election year. The anti-fraud/anti-abuse sections of these amendments were later re-introduced as S 3802. Following hearings on these amendments, they were passed by the Senate but failed to pass the House.

These amendments have again been re-introduced as HR 3 and S 143. It is the recommendation of your committee that the following resolution relating to this legislation be adopted by the Nebraska Medical Association.

MEDICARE/MEDICAID ANTIFRAUD AND ABUSE AMENDMENTS

WHEREAS, the Nebraska Medical Association ab-

hors fraudulent medical practices of all kinds whether or not they are related to patients whose medical services are financed through Medicare or Medicaid, and

WHEREAS, far-reaching revisions of the present Medicare and Medicaid programs have been proposed in an attempt to deal with fraud and abuse, and

WHEREAS, many judicial and/or regulatory mechanisms for redress are presently available to the government, and

WHEREAS, the Nebraska Medical Association is concerned that many of the new remedies proposed for solutions of alleged fraud in these programs may represent unwarranted intrusion into the professional and personal activities of patients and physicians; therefore be it

RESOLVED, that the Nebraska Medical Association is opposed to a definition of "supplier" which would include a shared health facility as defined in HR 3 and S 143 in such a way that individual practitioners would be included; and be it further

RESOLVED, that the Nebraska Medical Association is opposed to the involvement of PSROs in the review of physicians' office practices at the initiative of the Secretary of the Department of Health, Education, and Welfare; and be it further

RESOLVED, that a copy of this resolution be forwarded to our Congressional representatives and our Governor.

A second bill of concern to your committee relates to laboratory licensure and regulation. The Clinical Laboratory Improvement Act (S 705) would allow the Federal government to control laboratory work done in physician's offices. In committee discussion, it was the feeling of the committee this bill should be brought to the attention of Association members. It was suggested that a resolution be prepared indicating the NMA does not feel federal, universal standards can be developed which meet the need of rural Nebraska and urban areas such as New York City. It is the recommendation of your committee that the following resolution be adopted by the Nebraska Medical Association.

LABORATORY LICENSURE AND REGULATION

WHEREAS, diagnostic laboratory services are important to the patients and physicians of the State of Nebraska, and

WHEREAS, the State of Nebraska is predominantly a rural state and has wide variations in the scope, nature, and facilities of its medical and health care facilities, and

WHEREAS, solutions to problems in the provision of medical/health care in a rural setting are not necessarily appropriately addressed by implementing rigid national standards; therefore be it

RESOLVED, that the Nebraska Medical Association requests that any legislative or regulatory approach to the improvement of clinical laboratory services must give consideration to the needs of patients and institutions in a rural setting; and be it further

RESOLVED, that the Nebraska Medical Association is available for consultation with those involved in establishment of laboratory standards; and be it further

RESOLVED, that this position be forwarded to our Congressional representatives and to our Governor.

Your committee will continue to monitor legislation in

the Congress and bring appropriate bills to the attention of this Association.

Respectfully submitted,
JERALD R. SCHENKEN, M.D.
Chairman

COMBINED REPORT OF THE MEDICAL SERVICE COMMITTEE AND INSURANCE AND PREPAYMENT MEDICAL CARE COMMITTEE

MEDICAL SERVICE COMMITTEE: Blaine Y. Roffman, M.D., Omaha, Chairman. **Legislative Subcommittee:** Robert Shapiro, M.D., Lincoln, Co-Chairman; Thomas Erickson, M.D., Fremont; Herbert Feidler, M.D., Norfolk; Donald Prince, M.D., Minden; Eugene M. Zweiback, M.D., Omaha. **Medical Liability Subcommittee:** Herbert Reese, M.D., Lincoln, Co-Chairman; Warren G. Bosley, M.D., Grand Island; James H. Dunlap, M.D., Norfolk; Dwaine Peetz, M.D., Neligh; A. L. Smith, Jr., M.D., Lincoln. **INSURANCE AND PREPAYMENT MEDICAL CARE COMMITTEE:** A. L. Smith, Jr., M.D., Lincoln, Chairman; Harold Dahlheim, M.D., Norfolk; Russell McIntire, M.D., Hastings; Leland Olson, M.D., Omaha; Paul Scott, M.D., Auburn; Stanley M. Truhlsen, M.D., Omaha; Hiram Walker, M.D., Kearney.

The Medical Service Committee met several times during the year primarily to monitor the activity in the malpractice field. At this time the Supreme Court is to hear our case on May 6, 1977. The Nebraska Hospital Association has filed an amicus curie in behalf of our case. The committee feels optimistic regarding the final disposition of this case.

At one of the recent meetings, the Medical Liability Subcommittee met with Mr. Bernard Koyen and Mr. Pat Clark of Financial Planning Associates of Omaha. They presented a proposal, orally, to form a physicians mutual liability company so that the physicians of the State of Nebraska would be basically self-insuring through their own program. The committee concluded that it would be necessary to see a written proposal before any definitive action could be taken. Subsequent to that meeting a written proposal was received for informational purposes.

The Medical Liability Subcommittee met in conjunction with the Insurance and Prepayment Medical Care Committee to discuss the latest information with the St. Paul Company regarding the present liability situation in Nebraska. This was the annual meeting with the Association to discuss the annual premium rates for the NMA endorsed professional liability policy. At this meeting, St. Paul announced the premiums for physicians would be reduced approximately 25% from the proposed rates and 17% from the present rates. This was based on a decrease in the number of suits filed in the last half of 1976, very likely due to the passage and resulting publicity surrounding LB 434.

Medical Service Committee
BLAINE Y. ROFFMAN, M.D.
Chairman

Insurance and Prepayment Medical Care Committee
A. L. SMITH, JR., M.D.
Chairman

REPORT OF THE CANCER COMMITTEE

F. William Karrer, M.D., Omaha, Chairman; William T. Griffin, M.D., Lincoln; Henry M. Lemon, M.D., Omaha; Claude Organ, M.D., Omaha; Wallace J. Vnuuk, M.D., Kearney.

Your Cancer Committee has met for the purpose of reviewing the issue of Laetrile and its status in Nebraska.

After reviewing numerous sources of information on

this drug, it was the unanimous consensus of the committee that the issue should be brought to the attention of the Association.

Therefore, your committee recommends acceptance of the following resolution.

WHEREAS, it has been brought to the attention of the Nebraska Medical Association Cancer Committee that unproven cancer treatment in the form of Laetrile is being administered in Nebraska, and

WHEREAS, the committee of this Association has reviewed the published material relating to the use of Laetrile, and it is the opinion that it is an unproven method of cancer treatment; now therefore be it

RESOLVED, the House of Delegates of the Nebraska Medical Association has been unable to find reliable evidence that the use of Laetrile results in any objective benefit in the treatment of cancer in human beings and agrees with the conclusion of the American Cancer Society incorporated in this respect; and be it further

RESOLVED, that the Nebraska physicians engaged in the treatment of cancer should confine the treatment rendered in this respect to methods of treatment which have been proved to be effective by established scientific methods. Use of unproven cancer remedies such as Laetrile results in needless expense, including false hopes of cure in patients so treated and of more importance prevents some patients from seeking and receiving effective treatment by methods which have been scientifically proved to be of value. It is the policy of this Association that Nebraska physicians should avoid use of any treatment relating to cancer patients which has not been proved to be effective by established scientific methods.

Respectfully submitted,
F. WILLIAM KARRER, M.D.
Chairman

REPORT OF AD-HOC LIAISON COMMITTEE FOR STATE GOVERNMENTAL AGENCIES

Warren G. Bosley, M.D., Grand Island, Chairman; V. Franklin Colon, M.D., Friend; John F. Fitzgibbons, M.D., Omaha; Donald E. Matthews, M.D., Lincoln; Y. Scott Moore, M.D., Lincoln.

This committee was appointed to establish and maintain communications with appropriate state governmental agencies as they concern the Nebraska Medical Association. To this end, two meetings have been held with the Department of Public Welfare and with the State Department of Health.

The first meeting with the Department of Public Welfare, was held on 9 December 1976, with Mr. Donald Hogg, Chief of Medical Services Division, and others of his department. Adams County Resolution #4 and Lancaster Resolutions #10 and #11, were discussed as part of this meeting. Mr. Hogg stated that HEW has directed the Welfare Department to secure provider agreements from physicians in the state. Although the Department decided to utilize the AMA claim form to simplify the reporting process, HEW objected to the use of this form. The Department, however has continued to use the form and now other third party carriers are also using it. Nebraska was the first state to adopt this form for use by the Department of Public Welfare. The Department is required to pay fees established by the Medicare and Medicaid "usual and customary" formula. One payment is made by Medicaid,

this is considered total payment, and the patient may not be billed for any additional charges. Each time a Nebraska physician signs the health insurance claim form he is signing a provider agreement. If questions cannot be resolved within the Department, it is submitted to the peer review committee of NMA. The Department is dependent on this professional assistance.

The committee and Department representatives reviewed Federal law and regulations regarding certification and re-certification. These regulations require initial certification at the time of admission to a long-care institution and re-certification every 60 days thereafter. These regulations also require the physician to review his plan of care every 60 days in hospitals and skilled nursing facilities and every 90 days in mental hospitals and intermediate facilities. Mr. Hogg emphasized that the Department is attempting to stay within state and federal regulations and make the implementation as "comfortable" as possible. It appeared clear to the committee that these regulations leave very little room for modification by the Department. Because Nebraska has apparently more intermediate care facility patients than other states, the problem of HEW regulations and review requirements are correspondingly greater here.

The Department stated that the PAS 75th percentile range is being used in utilization review of hospital stays. Copies of the Department's parameters are available to anyone who wishes to see these. The Department some time ago made available to hospitals a manual containing these length-of-stay parameters.

There was considerable discussion of the need for alternate levels of care, especially for older patients. There are in Nebraska 91 nursing home beds for every 1,000 people over 65 years of age. The national average is 51 beds for every 1,000 people over 65 years of age. Many individuals probably could lead more productive lives in a more normal environment. The Department would like to develop facilities for alternate levels of care and solicits the support of physicians in developing these other approaches, which would allow the elderly to maintain a maximum of self-sufficiency in the least restrictive environment.

MAC regulations were discussed in detail. The Department has developed a certification form for the prescribing of brand name drugs. HEW has mandated this form, apparently for the purpose of harassing the physician so that he will choose to write generic prescriptions. Under HEW regulations the physician must complete this form before the department can reimburse pharmacists. Sample copies of this form will be available to physicians, either through the department or through the NMA. The effective date of these regulations is not really known, since they are originally scheduled for August, 1976.

The committee was invited to attend the quarterly meeting of the Welfare Department, Blue Cross, Blue Shield, Mutual of Omaha, and the Nebraska Hospital Association, in order to discuss with these agencies the effect of current regulations and other items that might be of concern. The Department emphasized again its desire to continue active liaison with the Nebraska Medical Association and to keep the Association informed as completely as possible of activities of HEW and the effect of its regulations. The committee was impressed with the importance of this active contact.

On 31 March 1977 the committee met with representatives of the Nebraska Department of Health and

with other representatives of the Department of Public Welfare. Initially, there was discussion of the psychiatric control program of the Department of Public Welfare. There is no longer an arbitrary ceiling on length of stay for psychiatric care, and utilization review will be made in a manner similar to that used for other kinds of illnesses. Psychologists will be paid when they work under the direct supervision of a physician. Community Mental Health Clinics must petition for payment and approval by the Department. If there is no physician supervision in the Clinic, payment will not be made for services rendered at the Clinic. The committee believes that there is continuing discussion between the Department and psychiatric care facilities in this area and that changes in the present regulations may be made.

The committee heard a discussion of the Services for Crippled Children. This program falls under Title V of the Social Security Act and was initiated in 1935 as a federal grant program with funds matched 50-50 by individual states in order to obtain full funding. In Nebraska the support is approximately 75-80% state funds. Originally, only orthopedic diseases were covered under this program, but now cerebral palsy, cystic fibrosis, congenital heart disease, intensive infant care, hearing problems, etc. are covered. Aid is limited to those families who proved to be "medically indigent" and who are in need of financial assistance to meet the costs of a medical care regimen in this program. Physicians and hospitals are accredited by the program, and care under the program is limited to those so accredited. Physicians are reimbursed at a rate of 7. It was pointed out that the program in Nebraska is recognized as one of the best in the country.

The committee then entertained a discussion of family planning clinics. The Department of Health has been involved in family planning clinics since about 1971, when the regional office in Kansas City wanted to have only one grantee agency for this purpose. The Department of Health was selected. At the present time, there are 12 family planning clinics or providers in Nebraska. Most of these are non-profit corporations which have their own board of directors, and which receive some funding through the Department of Health, which is responsible for training of nurses and social workers involved in these local clinics. Rural programs are reimbursed at \$50 per patient per year and urban programs receive \$30 per patient per year. Although these are basically out-reach programs for the purpose of reaching low income individuals that need family planning advice, there are no restrictions for admission to the clinics. Some charges for services will be made. About 88% of the individuals using the clinics fall below income guidelines and all receive counseling services, breast examinations, pelvic examinations, smears for gonorrhea, PAP smears, contraceptive supplies, referral services, etc. Since there had been some concern expressed by physicians in the state over literature being distributed by these clinics, the literature was discussed. Representatives from the Department of Health pointed out that these placards were developed within the clinics, not by the Department. The Chairman of the committee volunteered to contact the director of the central Nebraska program to express the concern of the committee over some of these publications.

Representatives of the Department stated that the primary effort of the family planning clinic is education, and that the material has been reviewed by nurses and social workers and physicians. It would appear that

private practicing physicians could not afford to spend the time that clinic personnel can spend in these educational efforts. An effort has been made to keep physician involvement as high as possible. The PAP smears have been done by the University of Nebraska and Creighton University for the past three years.

The committee apologizes to the House of Delegates for the length of this report. We have made an attempt to summarize lengthy discussions and to impress the members of the House with our belief that the Departments of Health and Public Welfare wish to maintain close communication with the Nebraska Medical Association and to develop programs of high quality. The departments and the committee are well aware of the tight federal regulations under which they must work, and we hope that we have been able to convey this awareness to the House of Delegates. Obviously, these meetings have been exploratory, and the committee would suggest that work continue, so that more of these points can be explored in detail and that it might continue to respond to questions and concerns of the members of the Nebraska Medical Association. The committee would appreciate free expression of these concerns.

Respectfully submitted,
WARREN G. BOSLEY, M.D.
Chairman

REPORT OF THE POLICY COMMITTEE

Harlan L. Papenfuss, M.D., Lincoln, Chairman; Arnold W. Lempka, M.D., Omaha; Warren G. Bosley, M.D., Grand Island; James H. Dunlap, M.D., Norfolk; John D. Coe, M.D., Omaha.

The Policy Committee has held several meetings since the October, 1976, Fall Session of the House of Delegates. The committee has considered numerous issues of importance to the Association, and a review of the items is presented in this report for the information of, and endorsement by, the House of Delegates.

1. The committee accepted the Medical Education Committee's recommendation that the Richard Young Hospital Division of the Lutheran Medical Center in Omaha be awarded Category I accreditation for a period of two years.
2. The committee adopted the following recommendation and its clarifying points: "The Nebraska Medical Association supports the position of the University of Nebraska Medical Center to promote the development of consumer health education which is of sound current content and the coordination of consumer health education within the University of Nebraska system and with other post-secondary educational institutions in Nebraska. This recognizes the fact that Nebraska has limited financial resources and the urgency for the development of a sound and high quality program of citizenship responsibility in health. The continued support of the Health Galleries as a Center for Community Health Education in Lincoln will be contingent upon the realization of this resolution, and that the health education program on the Lincoln campus has a continued viable relationship with the College of Medicine."

"The Health Education in Schools and Colleges Committee pointed out the resolution would not change any structure of the health education program only add support and strength to it."

The Policy Committee recommends the House of Delegates adopt the above position in that the University of Nebraska is in the process of considering whether the academic base of the health education program should be removed from the College of Medicine and placed in the Teacher's College or some other college in Lincoln.

3. Representatives of Nebraska's two medical schools met with the committee for purposes of liaison and several items of mutual interest were discussed.
4. The Policy Committee considered a request from Mutual of Omaha to provide peer review services should the company be awarded the contract to administer the CHAMPUS Program in the State of Nebraska. As the service would be similar to that now provided any third-party carrier on request, the Policy Committee concurred that this additional service could be made available.
5. The committee received a communication which visually outlined the relationship of the parent organizations which comprise the Coordinating Council on Medical Education and the liaison committees which it has. This information was distributed to NMA officers and delegates, and the NMA's delegates and alternate delegates to the AMA.
6. The committee received notification that Claude H. Organ, Jr., M.D., had been suggested for consideration for membership on the AMA's Council on Medical Education. The committee concurred with the nomination and indicated this to the AMA.
7. The committee considered a communication from the State Department of Health soliciting recommendations from the Association for members to be appointed to the Board of Advanced Emergency Medical Care, as established in LB 138. The Policy Committee recommended: Doctors Harris B. Graves of Omaha; Donald D. Bailey of O'Neill; Joel T. Johnson of Kearney; Anthony J. Carnazzo of Omaha; Richard B. Svehla of Omaha; and Stephen W. Carveth of Lincoln. These names were forwarded to the State Department of Health for consideration.
8. The committee considered a communication from the Scientific Sessions Committee proposing that there be a formal protocol for serving on the committee in order to comply with CME requirements. Such referred not only to qualifications to serve and the actual selection process, but the establishment of a mechanism which specified the Chairman serve for three years; there be provision for an Annual Convention Chairman; and that specific terms be utilized for service on the committee. The Policy Committee agreed there was need for the establishment of a mechanism to assure continuity on the Scientific Sessions Committee, and the detailed proposal as submitted was accepted.
9. The President of the Association received a communication from the incorporators of Medical Liability Mutual Insurance Company of Nebraska which explained the development of the proposed company to date. The Policy Committee discussed the communication for informational purposes only. The original idea for the formation of a company was presented to the Medical Liability Subcommittee of the NMA's Medical Service Committee. A report of that meeting is contained elsewhere in the Handbook.

The Association has and continues to endorse the professional liability package of the St. Paul Fire and Marine Insurance Company, which now has in excess of 1,200 Nebraska physicians as participants. Recognizing the Association favors competition in all realms of endeavor, the Policy Committee has developed a position of neutrality on insurance proposals other than those which have been endorsed by the organization.

10. The request that an Ad-Hoc Cost Containment Committee be appointed was on the committee's agenda for its December 15, 1976, meeting. The committee feels criteria must be established as to whether the area of concern is physician's fees, hospital costs, drug costs, total health costs, or etc. The AMA has been contacted for information they might be able to provide regarding the establishment of such an ad-hoc committee.
11. In regard to Doctor Earl J. Dean's request, the matter of requiring utilization review of government hospitals was presented personally by your President to each of Nebraska's five Congressional representatives urging that such hospitals be subject to the same requirements as hospitals in the private sector.
12. The committee has spent the major portion of its time considering the reorganization of the Association. Contact was made with many organizational bodies within the Association for input and background information which was beneficial to the deliberations of the committee.

Attached to this report are a revised Constitution and By-Laws in draft form (blue copy) and the NMA Constitution and By-Laws as currently worded (white copy).

The committee recognizes the revised version presents major change in the organizational structure of the Association and the matter will produce considerable discussion in the Reference Committee. The Policy Committee stands ready to discuss the proposal in detail at that time.

The Policy Committee recommends that the revised Constitution and By-Laws be reviewed at this session and, with changes and suggestions received, it then be forwarded to the Constitution and By-Laws Committee and NMA Legal Counsel for finalization prior to submission to the House of Delegates for final approval at the 1977 Fall Session. It is hoped that the organizational version may be implemented at the 1978 Annual Session.

Your Policy Committee has been busy in recent months considering matters of importance which affect the membership of the NMA. This report reflects the committee's effort after countless hours of deliberation.

The committee stands ready to consider matters that may be referred to it at this Session of the House of Delegates.

Respectfully submitted,
HARLAN L. PAPENFUSS, M.D.
Chairman

SUPPLEMENTAL REPORT OF THE POLICY COMMITTEE

For purposes of future planning, the Policy Committee would like to recommend that a Reference Committee consider the future scheduling of Annual

Sessions of the House of Delegates on a proposed schedule as follows:

Annual Session, 1978 — Lincoln
Annual Session, 1979 — Kearney
Annual Session, 1980 — Omaha
Annual Session, 1981 — Lincoln
Annual Session, 1982 — Kearney

Under such scheduling, Kearney would be included in a regular rotation for Annual Sessions with Lincoln and Omaha. Fall Sessions could be held in Lincoln on a football weekend, as has been the current practice.

The number of conventions held in the State of Nebraska makes it necessary that N.M.A. activities be scheduled well in advance to assure proper accommodations and facilities on preferred dates.

Report of Board of Councilors

The Board of Councilors met at the Holiday Inn, Omaha, Nebraska on May 1, 1977. The following members were present: Drs. Carlyle E. Wilson, Jr., Omaha; Louis J. Gogela, Lincoln; H. C. Stewart, Pawnee City; Warren R. Miller, Columbus; Richard M. Pitsch, Seward; Hiram Walker, Kearney; Fred J. Rutt, Hastings; Berl Spencer, Ogallala; Calvin Oba, Scottsbluff; Harlan L. Papenfuss, President, Lincoln; Arnold W. Lempka, President-Elect, Omaha; and Warren G. Bosley, Immediate Past President, Grand Island.

The minutes of the Fall Session of the Board of Councilors were approved as printed in the December, 1976, issue of the Nebraska Medical Journal.

The requests for Life Membership and the Report of the Constitution and By-Laws Committee were discussed. It was pointed out that several of the physicians requesting Life Membership would not qualify under the proposal in the Report of the Constitution and By-Laws Committee. The Board of Councilors approved the requests with the exception of Drs. Dowell, McLaughlin and Pratt. Action on these individuals was tabled until after action by the House of Delegates.

In discussing the Report of the Medical Education Committee, it was thought there should be a uniform ID number used so that no matter where physicians go, they would have a uniform number. It was suggested this be referred back to the Medical Education Committee.

In discussing the Report of the Health Planning Committee, it was suggested that a copy of the EXECUTIVE SUMMARY, or preferably a condensed Summary, be sent to each Councilor.

The Report of the Cancer Committee was discussed and received unanimous approval.

In discussing the proposed revision of the Constitution and By-Laws, Dr. Wilson said in accordance with prior discussion of the Board of Councilors and the officers, that the Council on Professional Ethics could be absorbed by the Board of Councilors, and recommended that Section 4, Page 36, of the By-Laws be amended by eliminating the Council on Professional Ethics and their inter-related duties be absorbed by the Board of Councilors. This was approved.

All other reports in the Handbook were approved for consideration of the House of Delegates.

In discussing Resolution #1 — Opposition to Current Rules and Regulations for Nursing Homes, it was approved to caution the House concerning the first RESOLVED, "that all the physicians in the State of Nebraska declare a moratorium on doing any paperwork whatsoever in the Nursing Homes . . ."

In discussing Resolution #2 — Disabled Doctor, the Board of Councilors approved the following amended resolution:

WHEREAS, the problem of the "Disabled Doctor" is becoming increasingly prominent nationally and some 32 states have established mechanisms for identification, aid and rehabilitation in these particularly difficult situations, and

WHEREAS, such problems do exist in Nebraska and no coordinated mechanism presently exists for their management; therefore be it

RESOLVED, that the Nebraska Medical Association form an ad-hoc committee to prepare a plan to identify and aid the ill, disabled and incompetent physician. This plan to be presented to the House of Delegates at the 1977, Fall Session for approval and implementation.

All other resolutions were approved for consideration of the House of Delegates.

Elections were called for, and the following were elected by the Board of Councilors:

Board of Directors — Dr. Dwight W. Burney, Jr., Omaha

Medicolegal Advice Committee — Dr. Hiram Walker, Kearney

Council on Professional Ethics — Dr. John Sage, Omaha

There being no further business, the meeting was adjourned.

Report of House of Delegates

FIRST SESSION

The first session of the House of Delegates was held at the Holiday Inn, Omaha, Nebraska, May 1, 1977. The meeting was called to order by the Speaker, Dr. McFadden.

A call for a quorum showed 68 delegates present, and the House was declared in session.

Following the seating of delegates to replace those not in attendance, the following oral reports were presented:

Mrs. Orin Hayes, Health Galleries

Dr. John Sage, Board of Examiners in Medicine and Surgery

Dr. Harlan L. Papenfuss, Report of the President

Dr. McFadden called for approval of the Fall Session House of Delegates minutes as printed in the December, 1976 issue of the Journal, and these were approved as printed.

Dr. McFadden read the selection of members to serve on Reference Committees, and these were approved.

The following Nominating Committee was selected and approved:

1st District - Dr. Blaine Roffman, Omaha

2nd District - Dr. Vernon Garwood, Lincoln

3rd District - Dr. M. E. Samuelson, Wymore

4th District - Dr. James Carlson, Verdigre

5th District - Dr. Warren Miller, Columbus

6th District - Dr. John Murphy, Aurora

7th District - Dr. Charles Ashby, Geneva

8th District - Dr. Thomas Wallace, Gordon

9th District - Dr. Ken Ellis, Kearney

10th District - Dr. James Carson, McCook

11th District - Dr. Bruce Claussen, North Platte

12th District - Dr. Alvin Armstrong, Scottsbluff

The following Reference Committee assignments were made:

Reference Committee #1

Audit

Board of Directors

Maternal and Child Health

Ad-Hoc Committee on Federal Legislation

Combined, Medical Service and Insurance &

Prepayment Medical Care

Resolution #5 - AMA's Intervention into Local Law-suit

Resolution #6 - Continuation of Smallpox Immunization

Resolution #9 - Legislation Providing for Drug Selection by Pharmacists

Reference Committee #2

Delegate to AMA

Nebraska Medical Foundation

Medicine and Religion

Mental Health & Mental Retardation

Cancer

Policy, Items 1 through 7

Resolution #13 - Opening of House of Delegates With a Prayer

Resolution #14 - Trade Unionism

Reference Committee #3

Requests for Life Membership

Public Relations

Subcommittee on Athletic Injuries

Policy, Items 8 through 11

Supplemental Report of the Policy Committee

Resolution #7 - Legal Action Against Drunk Drivers

Resolution #8 - Federal Trade Commission

Resolution #12 - HEW Publication of Physician's Payments

Reference Committee #4

Dean, University of Nebraska College of Medicine

Interim Chancellor, University of Nebraska Medical Center

Dean, Creighton University School of Medicine

Medical Education

Policy, Item 12 and Draft Copy of Constitution and By-Laws

Report of the President

Reference Committee #5

State Department of Health

Health Education in Schools and Colleges

Combined, Medicolegal Advice and Ad-Hoc Legal

Ad-Hoc, Liaison, State Governmental Agencies

Resolution #1 - Opposition to Current Rules and Regulations for Nursing Homes

Resolution #2 - Disabled Doctor

Resolution #3 - Blue Shield Acceptance of Medicare Billing Form

Resolution #10 - Third Party Insurance Forms

Reference Committee #6

Ad-Hoc, PSRO

Constitution and By-Laws

Health Planning

Membership

Resolution #4 - National Health Insurance

Resolution #11 - Opposition to Hospital Cost Containment Act, 1977

Resolutions from the floor were called for and the following were presented:

Resolution #15 - Greater Omaha Medical Society, Subject: Opposition to HR 2222. This was referred to Reference Committee #2.

Resolution #16 - Lincoln County Medical Society, Subject: Laetrile. This was referred to Reference Committee #2.

There being no further business, the House was recessed until Monday morning.

SECOND SESSION

The second session of the House of Delegates was held May 2, 1977. The meeting was called to order by the Vice Speaker, Dr. Landgraf.

The call for a quorum showed 67 delegates present and the House was declared in session.

Dr. Landgraf called for approval of the minutes of the first session and these were approved.

The following oral reports were presented to the House:

Mr. Tim Frary, Valentine, Representative of the Nebraska Academy of Physician's Assistants

Walter A. Bennett, D.D.S., Omaha, Representative of the Nebraska Dental Association

The minutes of the Board of Councilors were accepted for information.

Dr. Landgraf called for reports of the Reference Committees and the following were presented:

Reference Committee #1

Reference Committee #1 considered five reports and three resolutions. Your Reference Committee submits the following report and recommendations:

(1) ANNUAL AUDIT REPORT

The Annual Audit Report was discussed by the Chairman of the Board of Directors.

Recommendation:

The Reference Committee recommends approval of the Annual Audit Report.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE BOARD OF DIRECTORS

The Report of the Board of Directors was then considered. Your committee draws particular attention to the members and figures on the page of 1977 County Society Membership. As of April 15, 1977, there are 1,444 members of the Nebraska Medical Association, 936 of which are also members of the American Medical Association. Also note on the next page that there are 1,092 members upon which the number of our AMA delegates is based. If this falls below 1,000, we shall lose a delegate.

Recommendation:

Your Reference Committee suggests that a great effort be made to encourage membership in the American Medical Association, both to preserve the present number of Nebraska AMA delegates and for enhancement and encouragement of unified member-

ship. Your Reference Committee suggests that each Councilor might make this one of his primary tasks for the coming year.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE MATERNAL AND CHILD HEALTH COMMITTEE

Most of the discussion of this report had to do with the paragraph concerning strengthening of maternal mortality review with further study of appropriate cases.

Recommendation:

Your Reference Committee recommends approval of the Report of the Maternal and Child Health Committee.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF THE AD-HOC COMMITTEE ON FEDERAL LEGISLATION (ALSO TWO RESOLUTIONS CONTAINED IN REPORT PERTAINING TO MEDICARE/MEDICAID ANTIFRAUD AND ABUSE AMENDMENTS & LABORATORY LICENSURE AND REGULATION)

The resolutions contained in this report read as follows:

Medicare/Medicaid Antifraud and Abuse Amendments

WHEREAS, the Nebraska Medical Association abhors fraudulent medical practices of all kinds whether or not they are related to patients whose medical services are financed through Medicare or Medicaid, and

WHEREAS, far-reaching revisions of the present Medicare and Medicaid programs have been proposed in an attempt to deal with fraud and abuse, and

WHEREAS, many judicial and/or regulatory mechanisms for redress are presently available to the government, and

WHEREAS, the Nebraska Medical Association is concerned that many of the new remedies proposed for solutions of alleged fraud in these programs may represent unwarranted intrusion into the professional and personal activities of patients and physicians; therefore be it

RESOLVED, that the Nebraska Medical Association is opposed to a definition of "supplier" which would include a shared health facility as defined in HR 3 and S 143 in such a way that individual practitioners would be included; and be it further

RESOLVED, that the Nebraska Medical Association is opposed to the involvement of PSROs in the review of physicians' office practices at the initiative of the Secretary of the Department of Health, Education, and Welfare; and be it further

RESOLVED, that a copy of this resolution be forwarded to our Congressional representatives and our Governor.

Laboratory Licensure and Regulation

WHEREAS, diagnostic laboratory services are important to the patients and physicians of the State of Nebraska, and

WHEREAS, the State of Nebraska is predominantly a rural state and has wide variations in the scope,

nature, and facilities of its medical and health care facilities, and

WHEREAS, solutions to problems in the provision of medical/health care in a rural setting are not necessarily appropriately addressed by implementing rigid national standards; therefore be it

RESOLVED, that the Nebraska Medical Association requests that any legislative or regulatory approach to the improvement of clinical laboratory services must give consideration to the needs of patients and institutions in a rural setting; and be it further

RESOLVED, that the Nebraska Medical Association is available for consultation with those involved in establishment of laboratory standards; and be it further

RESOLVED, that this position be forwarded to our Congressional representatives and to our Governor.

Recommendation:

Your Reference Committee recommends approval of the Report of the Ad-Hoc Committee on Federal Legislation.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) COMBINED REPORT OF THE MEDICAL SERVICE COMMITTEE AND INSURANCE AND PREPAYMENT MEDICAL CARE COMMITTEE

Most of the discussion on this report had to do with Paragraph 2, regarding the formation of a physician mutual liability insurance company in Nebraska. Your Reference Committee regards this as a possible alternative for insurance coverage and suggests that members of the Association might wish to evaluate the presentations this company has to make at this meeting.

Recommendation:

Your Reference Committee approves the Report of the Medical Service Committee and Insurance and Prepayment Medical Care Committee and recommends adoption of this report.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(6) RESOLUTION #5 — AMA'S INTERVENTION INTO LOCAL LAWSUIT (GREATER OMAHA MEDICAL SOCIETY)

This resolution reads as follows:

WHEREAS, the American Medical Association has submitted a brief *amicus curiae* to the Nebraska Supreme Court on behalf of the House Officers Association for the University of Nebraska Medical Center lawsuit against the University of Nebraska Medical Center, and the Board of Regents, and

WHEREAS, the suit petitions the court to recognize the Nebraska House Officers Association as a collective bargaining group (which will amount to a trade union), and

WHEREAS, the American Medical Association filed its *amicus curiae* brief without consultation with or consent of the Nebraska Medical Association, and

WHEREAS, the Nebraska Medical Association had previously offered its services to aid in the solution of the differences between the University of Nebraska Medical Center and its House Officers, but refused to enter an *amicus curiae* brief in behalf of the House Officers Association on the grounds that this would place the Nebraska Medical Association in the position

of approving of trade unionization as a method of resolving educational differences for the Nebraska House Officers contrary to its official position; therefore be it

RESOLVED, that the American Medical Association interfered in the jurisdiction of the Nebraska Medical Association without appropriate communication and consultation, and be it further

RESOLVED, that the American Medical Association be censured for its act.

Your Reference Committee heard much discussion on this resolution. As part of this discussion, the Reference Committee had available to it Report U (C-75) of the Board of Trustees of the American Medical Association. The committee quotes from that report, "The Board of Trustees recommends that the House of Delegates adopt the policy that it is appropriate for constituent and component medical societies to aid or assist to represent interns and residents and attending physicians individually and collectively in resolving disputes with hospitals and others . . . The Board of Trustees intends to authorize the Executive Vice President to implement this policy by offering the assistance and coordination of the Division of Professional Relations to constituent associations." A later report of the AMA states, "RESOLVED, the American Medical Association reaffirms its position on Report U of the Board of Trustees (C-75) to 'aid and assist' interns and residents where they are in conflict with hospitals; . . ." It appears to your Reference Committee that the American Medical Association did indeed act beyond the policy and direction of the House of Delegates in filing a brief *amicus curiae* in behalf of the House Officer Association of the University of Nebraska Medical Center.

Recommendation:

Your Reference Committee recommends the adoption of Resolution #5 with the following changes:

In the fourth WHEREAS, strike the words "therefore be it" and substitute the word "and."

In the first RESOLVED, strike the word "RESOLVED" and substitute the word "WHEREAS." Strike the words "and be it further" and substitute the words "therefore be it."

Strike the entire last RESOLVED, and substitute the following: "RESOLVED, that the House of Delegates of the Nebraska Medical Association express to the Board of Trustees of the AMA its displeasure with this action."

Your Reference Committee believes that this incident emphasizes the need for more members of the house staff and academic faculties to become members of the NMA and AMA so that they might become familiar with the purposes and policies of these organizations.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(7) RESOLUTION #6 — CONTINUATION OF SMALLPOX IMMUNIZATION (ADAMS COUNTY MEDICAL SOCIETY)

This resolution reads as follows:

WHEREAS, the scourge of smallpox has been one of the most epidemic and untreatable diseases to plague mankind, and

WHEREAS, smallpox remains untreatable, tho preventable, and

WHEREAS, the concept of elimination of this disease depends on world wide monitoring and access to verifiable information regarding outbreaks, and

WHEREAS, the current SALT talks, the war in Lebanon, the spread of nuclear weapons capability, and the control of areas of the world by outright dictators suggests that the political utopia necessary for this access has not yet arrived;

THEREFORE, BE IT RESOLVED, the concept of cessation of vaccination for smallpox in this country be re-examined with a view toward maintaining a sufficient number of immunized persons to prevent an epidemic, should the elimination of this disease as proposed by the World Health Organization not be achieved.

Recommendation:

Your Reference Committee suggests a resolution to read as follows:

WHEREAS, smallpox has been the most significant disease to plague mankind, and

WHEREAS, the elimination of this disease depends upon worldwide surveillance and accurate information, and

WHEREAS, the current SALT talks, the war in Lebanon, the spread of nuclear weapons capability, and government of certain areas of the world by dictatorship suggest that the political climate necessary for collection of information does not yet exist, therefore be it

RESOLVED, that the policy of elimination of vaccination for smallpox in this country be reevaluated, to the end that a sufficient number of immunized persons and a supply of smallpox vaccine will be maintained to permit an adequate response should the elimination of smallpox not be achieved.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SUBSTITUTE RESOLUTION. This was approved by the House.

(8) RESOLUTION #9 — LEGISLATION PROVIDING FOR DRUG SELECTION BY PHARMACISTS (HALL COUNTY MEDICAL SOCIETY)

This resolution reads as follows:

WHEREAS, the Legislature of the State of Nebraska passed LB 103, a bill to provide for drug selection by pharmacists, and

WHEREAS, there is common knowledge that differences exist between various brands of Generic Drugs and that these differences can influence patients reactions to these drugs and that the attending physician is the only individual qualified to evaluate such differences, and

WHEREAS, this bill was passed without opposition from the Nebraska Medical Association, when in fact a majority of the membership did oppose the bill; therefore be it

RESOLVED, that the Nebraska Medical Association record its opposition to said bill and work for its repeal in the next session of the Legislature.

Recommendation:

Your Reference Committee recommends this resolution not be adopted.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Dr. Francis spoke in opposition to the recommendation of the Reference Committee and urged that

this recommendation not be adopted. Dr. Schenken suggested that perhaps this should be referred to the proper committee and be reported back to the House of Delegates. Dr. Francis moved that this be referred to a committee of the Association for review and a report be made at the next House of Delegates meeting. This motion was approved by the House. Dr. Landgraf said this would be referred to the Medical Service Committee. This section of the Reference Committee report was adopted as amended.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #1 AS A WHOLE AS AMENDED. This was approved by the House.

Respectfully submitted,
Dr. Warren G. Bosley, Grand Island,
Chairman
Dr. Patrick C. Gillespie, Beatrice
Dr. Robert J. Fitzgibbons, Omaha

Reference Committee #2

Reference Committee #2 considered six reports and four resolutions. Your Reference Committee submits the following report and recommendations:

(1) REPORT OF DELEGATE TO AMA — 1976 CLINICAL MEETING

The report dealt only with the issue of the resubmission of the AMA National Health Insurance bill to the 95th Congress. The Nebraska Medical Association's resolution to the AMA (#9) was defeated. In the discussion, it was pointed out an exemplary rebuttal to the principles behind HR 6222. These principles were promulgated by the Board of Trustees. This is found in the testimony of Dr. John R. Schenken before the House of Delegates. It was the feeling of your Reference Committee if reason would have prevailed, Resolution #9 would have passed.

Recommendation:

Your Reference committee recommends acceptance of the Report of the Delegates to AMA — 1976 Clinical Meeting and commends our Delegates to the AMA for an outstanding job.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE NEBRASKA MEDICAL FOUNDATION, INC.

Discussion revealed that two students will be receiving scholarships this year and plans are to continue this yearly from now on.

Recommendation:

Your Reference Committee recommends acceptance of the Report of the Nebraska Medical Foundation, Inc.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE MEDICINE AND RELIGION COMMITTEE

No testimony was heard on this report.

Recommendation:

Your Reference Committee recommends acceptance of the Report of the Medicine and Religion Committee.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF MENTAL HEALTH AND MENTAL RETARDATION COMMITTEE

There was no discussion or testimony on this report.

Recommendation:

Your Reference Committee recommends acceptance of the Report of the Mental Health and Mental Retardation Committee.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) REPORT OF THE CANCER COMMITTEE

There was a lively discussion regarding the resolution submitted by the Cancer Committee. This resolution was considered along with Resolution #16 regarding laetrile. Many members present felt this should be presented in a more positive aspect; therefore the resolution submitted by the Cancer Committee was struck and the following rewording submitted:

WHEREAS, the modern scientific methods employing various combinations of chemotherapy, radiation therapy and surgical therapy which can favorably influence the course of most stages of most types of cancer with improvement of the quality of life and in some instances affect a cure of cancer, and

WHEREAS, delay in seeking effective modes of therapy may seriously jeopardize the possibility of treatment benefit or of potential cure of cancer, and

WHEREAS, there is no scientific evidence that laetrile (also known as Vitamin B17 or Amygdalin) is of any benefit in the treatment, cure or prevention of cancer; therefore be it

RESOLVED, the Nebraska Medical Association urges its members to utilize all proven methods of cancer treatment to improve the quality of care available to all cancer patients and improve the possibility of cure, and be it further

RESOLVED, use of unproven cancer remedies such as laetrile gives false hopes of curing patients so treated and of more importance prevent some patients from seeking and receiving effective treatment by methods which have been scientifically proven to be of value. It is the policy of this Association that Nebraska physicians must avoid use of any treatment relating to cancer patients which has not been proven to be effective by established scientific methods.

Recommendation:

Your Reference Committee recommends adoption of this report and amended resolution. Nothing in the report of the Cancer Committee should be interpreted as interfering with legitimate study of cancer remedies under beneficial medical research conditions.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded.

Dr. Nye moved to amend this section of the Reference Committee report by directing this resolution be sent to each State Legislator in Nebraska. This was approved by the House.

Dr. Cornelius additionally suggested the Public Relations Committee develop a position paper which would be included with this resolution to the Legislators and possibly this also could be sent the news media - radio, TV, etc. The Chair directed that a position paper be developed by the Public Relations Committee to be included with the resolution.

Dr. Dunlap suggested this mailing to the Legislators be made by the contact men rather than the Nebraska Medical Association.

This section of the Reference Committee report was adopted as amended.

Dr. Landgraf informed the House that Dr. Bernard Korbitz, an oncologist, was willing to discuss laetrile if the House so wished. The House indicated their desire to have him appear at their Wednesday session.

(6) REPORT OF THE POLICY COMMITTEE, ITEMS 1 THROUGH 7

Very little discussion was heard on these seven items, and there was no adverse discussion.

Recommendation:

Your Reference Committee recommends acceptance of Items 1 through 7, of the Report of the Policy Committee.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(7) RESOLUTION #13 — OPENING OF HOUSE OF DELEGATES WITH A PRAYER (BUTLER COUNTY MEDICAL SOCIETY)

This resolution reads as follows:

RESOLVED, that the Nebraska Medical Association open each session of the House of Delegates with a prayer.

This resolution was withdrawn by the originator after discussion with the Speaker of the House. It was suggested the Medicine and Religion Committee could be active and aid in the invocation of the opening session of the House of Delegates.

Recommendations:

1. Resolution #13 was withdrawn and no action was taken.
2. The Medicine and Religion Committee assist the Speaker of the House of Delegates in the invocation of the opening session of the House of Delegates.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(8) RESOLUTION #14 — TRADE UNIONISM (LANCASTER COUNTY MEDICAL SOCIETY)
RESOLUTION #15 — OPPOSITION TO HR 2222 (GREATER OMAHA MEDICAL SOCIETY)

These resolutions read as follows:

Resolution #14

WHEREAS, the Nebraska Medical Association is opposed to trade unionism as a means of discussion and negotiation for the medical profession, and

WHEREAS, the National Labor Relations Board has ruled that interns and clinical fellows are students, not employees, and

WHEREAS, the primary goal of residency training programs is medical education; therefore be it

RESOLVED, that the Nebraska Medical Association oppose HR 2222 which is attempting to include interns, residents and house staff physicians as "professional employees" for purposes of organizing and collective bargaining under the National Labor Relations Act; and be it

FURTHER RESOLVED, that a copy of this resolu-

tion be sent to the Board of Trustees of the American Medical Association, all Nebraska Congressional representatives and the Chairman of the House Subcommittee on Labor-Management Relations.

Resolution #15

WHEREAS, interns and residents are recognized by both the government (Medicare Manual Chapter IV and Health Professions Educational Assistance Act of 1976) and medical education institutions as being students of medicine, and

WHEREAS, HR 2222 defines interns and residents as employees for the purpose of permitting collective bargaining under the National Labor Relations Act, and

WHEREAS, this act would legalize a segment of the medical profession as a trade union, and

WHEREAS, the official position of the Nebraska Medical Association is opposed to trade unionism as applied to the medical profession; therefore let it be

RESOLVED, that the Nebraska Medical Association oppose HR 2222; and let it be further

RESOLVED, that a copy of this resolution be sent to the American Medical Association, AAMC, the medical colleges of the University of Nebraska and Creighton University, to the Nebraska Chapter of Interns and Residents Association, the members of Congress from Nebraska, and to the Subcommittee on Labor-Management Relations, Committee on Education and Labor, U.S. House of Representatives.

A very lively discussion and testimony was heard regarding this volatile subject. Initially, there was a great deal of polarization, but consensus did develop in opposition to trade unionism as such. Both Resolution #14 and #15 were considered together as they were of very similar content. A resolution was developed containing the consensus of opinions expressed during this discussion.

Recommendation:

The following substitute resolution be adopted in lieu of Resolutions #14 and #15:

WHEREAS, the interns and residents are engaged as students in a program of continuing medical education and at the same time and inseparably are employees in a system of "health care delivery," and

WHEREAS, problems arising from medical practice by resident physicians in conditions of employment during residency years present special problems which involve both their status as graduate students and their position as employees, and

WHEREAS, the process of medical education must be kept free from procedures developed for and suitable for industry and commerce, and

WHEREAS, the pursuit of legitimate economic objectives and working conditions by resident physicians should be carefully protected, and

WHEREAS, the concept of "collective bargaining" has come to be associated with the tactics of trade unionism which are unsuited to the medical profession; be it

RESOLVED, that the Nebraska Medical Association House of Delegates for these carefully considered reasons oppose HR 2222 to deal with resident physicians fully as employees, and be it further

RESOLVED, that the Nebraska Medical Association stands in agreement with that portion of the AMA

Board of Trustees Report U adopted at the 1975 Clinical Convention that states that it is appropriate for constituent and component medical societies to aid, assist or represent interns and residents and attending physicians individually and collectively in resolving disputes with hospitals and others. Such activities should be geared to achieve legitimate objectives without sacrificing the quality of graduate medical education or patient care, and be it further

RESOLVED, possible mechanisms and difficulties involved in implementation of the second resolved be referred to the appropriate committee which shall report to the 1977 Fall Session of the Nebraska Medical Association House of Delegates on its findings, and be it further

RESOLVED, that a copy of this resolution be sent to the AMA, the AAMC, the medical colleges of the University of Nebraska and Creighton University, to the appropriate intern and resident associations, the members of the Nebraska Congressional delegation, and to the Subcommittee on Labor-Management Relations, the Committee on Education and Labor, U.S. House of Representatives.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded.

Dr. Schenken suggested that in the first WHEREAS of this resolution, the word "continuing" be changed to "graduate." This change was approved by the House.

Dr. Cornelius asked for an explanation of the third WHEREAS of this resolution, and following discussion, the Reference Committee agreed to delete this WHEREAS.

This section of the Reference Committee report was adopted as amended.

(9) RESOLUTION #16 — OPPOSITION TO LAETRILE (LINCOLN COUNTY MEDICAL SOCIETY)

This resolution reads as follows:

RESOLVED, the Nebraska Medical Association refuses to condone the use of Laetrile (also known as Vitamin B17 or Amygdalin) as a drug useful in the prevention, treatment, or cure of cancer.

Discussion on this resolution was heard in conjunction with the Report of the Cancer Committee. The resolution regarding laetrile was rewritten and no action was taken on this resolution.

Recommendation:

Your Reference Committee recommends no action be taken on this resolution. This was seconded. Dr. Truhlsen moved that as this was considered in conjunction with the Cancer Committee Report, that it be incorporated in the report and resolution from the Cancer Committee and be filed with the Cancer Committee. This was approved by the House. This section of the Reference Committee report was adopted as amended.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #2, AS A WHOLE AS AMENDED. This was approved by the House.

Respectfully submitted,
Dr. Herbert E. Reese, Lincoln,
Chairman
Dr. Richard E. Donaldson, North Platte
Dr. Donald F. Prince, Minden

Reference Committee #3

Reference Committee #3 considered five reports and three resolutions. Your Reference Committee submits the following report and recommendations:

(1) LIFE MEMBERSHIPS

Your Reference Committee discussed the submitted list of physicians applying for Life Membership and the problem arising as a result of the recent constitutional changes. Your Reference Committee believes that under the Constitution as it now stands, that physicians whose names were presented should be granted Life Memberships.

Recommendations:

1. Your Reference Committee recommends acceptance of the following list of physicians as submitted by the component medical societies:

Adams County Medical Society

Dr. J. A. McMillan, Hastings

Dr. Don E. Murray, Gibbon

Dawson County Medical Society

Dr. V. D. Norall, Lexington

Dr. B. W. Pyle, Gothenburg

Gage County Medical Society

Dr. R. Brown, Beatrice

Greater Omaha Medical Society

Dr. George T. Alliband, Omaha

Dr. Joseph J. Borghoff, Omaha

Dr. D. Arnold Dowell, Omaha

Dr. Charles W. McLaughlin, Jr., Omaha

Dr. J. Milton Margolin, Omaha

Dr. W. Howard Morrison, Omaha

Dr. Peyton T. Pratt, Omaha

Lancaster County Medical Society

Dr. R. O. Garlinghouse, Lincoln

Dr. Richard W. Gray, Lincoln

Madison County Medical Society

Dr. H. S. Tennant, Stanton

Otoe County Medical Society

Dr. C. R. Williams, Syracuse

Seward County Medical Society

Dr. James W. Carr, Seward

South Central County Medical Society

Dr. Paul A. Reed, Deshler

2. Your Reference Committee recommends the insertion of a second paragraph under Section 5, of the proposed new By-Laws to read: "Life Membership may be granted in like manner to members in good standing who have been actively practicing for 45 years."

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE PUBLIC RELATIONS COMMITTEE

Your Reference Committee discussed the contents of the report and suggestions were made that the Public Relations Committee implement a more aggressive policy in reporting the positive side of medicine, as for example the functions of the AMA and the Nebraska Medical Foundation and physicians' efforts through their various organizations to improve the quality of care.

Recommendation:

Your Reference Committee recommends acceptance of the Report of the Public Relations Committee.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE SUBCOMMITTEE ON ATHLETIC INJURIES

Recommendation:

The subcommittee's report was received and your Reference Committee recommends acceptance of the Report of the Subcommittee on Athletic Injuries.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF THE POLICY COMMITTEE, ITEMS 8 THROUGH 11

Your Reference Committee considered Item 8 and agrees that a mechanism to insure continuity on the Scientific Sessions Committee is needed and should be implemented.

Item 9, was accepted for informational purposes.

Your Reference Committee thought no action should be taken on Item 10, until the requested information from the AMA has been provided.

Your Reference Committee concurs with the action taken in Item 11.

Recommendation:

Your Reference Committee recommends acceptance of Items 8, 9, 10 & 11, of the Policy Committee Report.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) RESOLUTION #7 — LEGAL ACTION AGAINST DRUNK DRIVERS (ADAMS COUNTY MEDICAL SOCIETY)

Your Reference Committee heard a great deal of discussion pertaining to Resolution #7, because of the inherent problems of prescribing the legal penalties pertaining to drunken driving. This resolution reads as follows:

WHEREAS, the highway death toll continues to increase each year, and

WHEREAS, the percent of alcohol related deaths continues at 50%, and

WHEREAS, current efforts to prevent driving while intoxicated have failed, and

WHEREAS, the democracies of England and West Germany have reduced the alcohol related deaths by 50% in a single year;

THEREFORE, BE IT RESOLVED, the Adams County Medical Society (NMA) supports the enactment of legislation, modeled after that of England and West Germany that would:

1. Define driving while intoxicated in precise measurable terms
2. Require a mandatory loss of drivers license for five years upon conviction with no judicial discretion
3. Require a suitable mandatory imprisonment for the felony of driving after loss of license for intoxication.

BE IT FURTHER RESOLVED, that a copy of this be sent to the Nebraska Bar Association soliciting their assistance in reducing this unnecessary loss of life and limb.

Recommendation:

Your Reference Committee recommends referral of this resolution to an appropriate Association committee

for study in depth.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded.

Dr. Kelley was granted permission of the floor and said that he wished to call attention to a bill in the Legislature, LB 204, pertaining to alcoholism.

This section of the Reference Committee report was approved by the House.

(6) RESOLUTION #8 — FEDERAL TRADE COMMISSION (DR. LOUIS J. GOGELA, ALTERNATE DELEGATE TO THE AMA)

Your Reference Committee heard discussion of the continuing intrusion of governmental agencies and governmental regulations into the practice of medicine and associated organizations. This resolution reads as follows:

WHEREAS, voluntary non-profit organizations such as medical associations, hospital medical staffs, certification and accreditation boards, etc. have critical responsibilities related to patient care, medical quality assurance, continuing medical education, certification, accreditation, and peer review, and

WHEREAS, such organizations are charged with making decisions concerning the quality of medical practice of individual practitioners and institutions on an ongoing basis in order to protect the public, and

WHEREAS, not-for-profit professional organizations are presently exempt from many of the provisions of the Federal Trade Commission Act recognizing the necessity of maintaining freedom of professional action; therefore be it

RESOLVED, that the Nebraska Medical Association opposes further inclusion of not-for-profit physician's professional organizations within the jurisdiction of the Federal Trade Commission as has been suggested in such bills as HR 3816, and be it further

RESOLVED, that the Nebraska Medical Association communicate this opposition to the American Medical Association, the Governor of the State of Nebraska, and the Congressional Delegation from Nebraska.

Recommendation:

Your Reference Committee recommends acceptance of Resolution #8.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(7) RESOLUTION #12 — HEW PUBLICATION OF PHYSICIAN'S PAYMENTS (DR. C. J. CORNELIUS, JR., DELEGATE TO AMA)

Your Reference Committee heard facts relating to the gross inaccuracies, reprehensible recordkeeping, errors and the resultant guilt by association and implied fraud inflicted upon reported physicians.

A study of 208 of 409 physicians in the widely reported HEW list revealed an error rate of 65% in listing names and amount was reported in the AMA NEWSLETTER.

This resolution reads as follows:

WHEREAS, the act of publication of the names of physicians, physician groups, and clinical laboratories who have received \$100,000 or more in Medicare payments implies wrong doing or fraud by those listed even though this is not the case in most instances, and

WHEREAS, the publication of payments by the

Department of Health Education and Welfare fails to differentiate between gross payments to physicians and net income, between payments to solo practitioners and payments to groups, and between payments to individuals and to organizations, and

WHEREAS, the list recently released by HEW was grossly inaccurate both with respect to the names and the amounts listed, and

WHEREAS, the Medicare law provides the mechanism for dealing with wrong doing and fraud if such be the case;

THEREFORE BE IT RESOLVED, that this practice of releasing these names be totally discontinued, and

BE IT FURTHER RESOLVED, that a copy of this resolution be forwarded to the Governor of Nebraska and to each member of the Nebraska Congressional Delegation.

Recommendation:

Your Reference Committee recommends acceptance of the resolution with the addition in the third WHEREAS, after the word, "inaccurate" of the words "up to 65%".

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(8) SUPPLEMENTAL REPORT OF THE POLICY COMMITTEE

Recommendation:

Your Reference Committee reviewed the Supplemental Report of the Policy Committee and recommends its acceptance.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #3, AS A WHOLE. This was approved by the House.

Respectfully submitted,
Dr. Stanley M. Truhlsen, Omaha,
Chairman
Dr. R. R. Andersen, Nehawka
Dr. Thomas H. Wallace, Gordon

Reference Committee #4

Reference Committee #4 considered six reports. Your Reference Committee submits the following report and recommendations:

(1) REPORT OF THE UNIVERSITY OF NEBRASKA COLLEGE OF MEDICINE

Recommendation:

Your Reference Committee recommends acceptance of this report.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF INTERIM CHANCELLOR, UNIVERSITY OF NEBRASKA MEDICAL CENTER

Dr. McFadden appeared before your Reference Committee and discussed his concern regarding the Governor's Commission on Rural Health Manpower. It was noted that neither the Nebraska Medical Association nor the Medical Centers which have had a long interest in rural health are involved.

Recommendations:

1. Your Reference Committee recommends the Policy Committee meet with the Governor and develop liaison with the Governor's Committee on Rural Health Manpower.
2. Your Reference Committee also recommends that the medical centers be included in this liaison with the Governor's commission on Rural Health Manpower.
3. It is possible the College of Medicine will lose approximately 10% of its budget, which is substantial and jeopardizes programs, reduces the quality of the faculty and will cut certain programs that are needed in the state. It is recommended that the physicians talk with their individual legislators in their area regarding this lack of funding for the University of Nebraska College of Medicine to try to resolve this situation and attempt to obtain from the Nebraska Legislature appropriations to replace these federal funds that are lost.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE CREIGHTON UNIVERSITY SCHOOL OF MEDICINE

Your Reference Committee wishes to commend Creighton University School of Medicine for its many new programs and especially the combined program in neurology and dermatology with the University of Nebraska.

Recommendation:

Your Reference Committee recommends that this report be adopted.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF THE MEDICAL EDUCATION COMMITTEE

Dr. John W. Smith, Chairman of the Medical Education Committee, testified before the committee.

Recommendation:

Your Reference Committee recommends this report be accepted. The voluntary compliance in this report should be emphasized. Further, membership in the NMA should not be contingent upon completion of the required hours for continuing medical education.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded and following discussion, Dr. Bosley moved that the last sentence be amended as follows: "Further, membership in the NMA should not be required for completion of the required hours for continuing medical education." This was approved, and this section of the Reference Committee report was adopted as amended.

(5) REPORT OF THE POLICY COMMITTEE, ITEM 12

Recommendations:

1. In accordance with the Report of the Board of Councilors, the Council on Professional Ethics should be abolished. This is a conflict with the Board of Councilors judicial activities.
2. The Speaker and Vice-Speaker terms be staggered for the first year, so both individuals will not be leaving the job at the same time.
3. The Board of Directors should not hold two

elective positions at the same time.

4. The terms of the Delegates and Alternate Delegates to the AMA be limited, possibly to five two-year terms.
5. In Chapter VI, Section 1, of the proposed draft, the last sentence in the first paragraph read, "The society, or group of societies so organized, shall be entitled to a second delegate for the next twenty members or fraction thereof (50%) and thereof an additional delegate for each additional 'Thirty' members or major fraction thereof," instead of fifty as in the draft proposal. At no time shall the outstate representation be less than 55%. This proposal was made to your Reference Committee and it feels it should be presented for consideration by the Constitution and By-Laws Committee.

Your Reference Committee is asking Dr. C. Lee Retelsdorf, President of the Greater Omaha Medical Society, to speak of this. We are presenting materials given us regarding what this action means in relationship to the numbers of members and delegates.

PRESENT

(50 Physicians for a New Delegate)

No. of Members	Delegates	Representation
0- 4	0	
5- 14	1	5 -14
15- 25	2	7.5-12.5
26- 75	3	8.6-25
76-125	4	19 -31.3
126-175	5	25.2-35
176-225	6	29.4-37.5
226-275	7	32.3-39.3
276-325	8	34.5-40.6
326-375	9	36.2-41.7
376-425	10	37.6-42.5
426-475	11	38.7-53.2
476-525	12	39.7-43.8
526-575	13	40.5-44.2
576-625	14	41.1-44.6
626-675	15	41.7-45.1

PROPOSED

(30 Physicians for a New Delegate)

No. of Members	Delegates	Representation
0- 4	0	
5- 14	1	5 -14
15- 25	2	7.5-12.5
26- 55	3	8.6-18.3
56- 85	4	14 -21.3
86-115	5	17.2-23
116-145	6	
146-175	7	
176-205	8	
206-235	9	22.9-26.1
236-265	10	23.6-26.5
266-295	11	24.2-26.8
296-325	12	
326-355	13	
356-385	14	
386-415	15	
416-445	16	
446-475	17	
476-505	18	
506-535	19	
536-565	20	
566-595	21	
596-625	22	27.1-28.4
626-655	23	27.2-28.5
656-685	24	27.3-28.5

House is now 73 members

PROPOSAL would increase house to 91 with House Officers and 84 without House Officers
Lancaster now 7, change to 10 = gain of 3
Omaha now 15, change to 23 - gain of 8

Total 11

PRESENT 80 delegates now counting students and House Officers
39.3% of M.D.'s have 72.5% of votes
60.7% of M.D.'s (Omaha and Lincoln) have 27.5%

PROPOSED would be 91 delegates with change with House Officers
39.3% of M.D.'s would have 63.7%
60.7% of M.D.'s would have 36.2%

Without House Officer votes (7), then House has 73 members

PRESENT 39.3% of M.D.'s have 69.9% of votes (rural)
60.7% of M.D.'s have 30.1% of votes (urban)

House increase to 84 members

PROPOSED 39.3% of M.D.'s would have 60.7% of votes (rural)
60.7% of M.D.'s would have 39.3% of votes (urban)

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded.

Dr. Coe thought the Council on Professional Ethics should be retained. He moved to delete Recommendation #1, and return to the original concept providing for the Council on Professional Ethics. Dr. Wilson discussed the reasons for this suggested change in the By-Laws and following discussion, Dr. Coe's motion was not accepted. This section of the Reference Committee report was adopted.

(6) REPORT OF THE PRESIDENT

Recommendation:

Your Reference Committee recommends the Report of the President be accepted as presented and that the President be commended for a job well done and commend him for pointing out that doctors do need to engage in politics and they do influence legislation.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #4, AS A WHOLE AS AMENDED. This was approved by the House.

Respectfully submitted,
Dr. Dan A. Nye, Kearney,
Chairman
Dr. Wm. Chleborad, Fremont
Dr. Howard Dinsdale, Lincoln

Reference Committee #5

Reference Committee #5 considered four reports and four resolutions. Your Reference Committee submits the following report and recommendations:

(1) REPORT OF THE STATE DEPARTMENT OF HEALTH

Recommendation:

Your Reference Committee recommends acceptance

of the Report of the State Department of Health.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE COMMITTEE ON HEALTH EDUCATION IN SCHOOLS AND COLLEGES

Discussion on this report centered on the importance of health education in schools and the feeling was expressed that the educational efforts should be extended to the graduate level. It was reported that in a conference held last fall with Dr. Anne Campbell, State Commissioner of Education, she suggested the Nebraska Medical Association assume the initiative in helping to coordinate efforts in health education with Nebraska. The report of the committee indicates that this item is now being studied by the committee as to how this can be accomplished most effectively. Your Reference Committee feels that the importance of health education in schools cannot be over emphasized.

Recommendations:

1. Your Reference Committee recommends approval of the Report of the Committee on Health Education in Schools and Colleges.
2. Your Reference Committee further recommends that the Public Relations Committee take an active part in coordination of health education efforts in the primary and secondary educational facilities.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) COMBINED REPORT OF THE MEDICOLEGAL ADVICE COMMITTEE AND AD-HOC LEGAL COMMITTEE

There was discussion concerning the Nebraska malpractice law. Discussion centered on the pamphlet prepared by this committee entitled, "The Physician and Professional Liability," and its possible usefulness to the membership-at-large and especially by individual members as they face malpractice litigation.

Recommendations:

1. Your Reference Committee recommends approval of the Combined Report of the Medicolegal Advice Committee and Ad-Hoc Legal Committee.
2. Your Reference Committee further recommends that the stated plan of the committee to send a copy of the report to NMA members as a member benefit be implemented.
3. Your Reference Committee further recommends that the Medicolegal Advice Committee and Ad-Hoc Legal Committee be commended for the preparation of the pamphlet.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF AD-HOC LIAISON COMMITTEE FOR STATE GOVERNMENTAL AGENCIES

Discussion on this report centered on the efforts of the directors of various state governmental agencies to cooperate with the medical association within the restraints placed upon them.

Recommendations:

1. Your Reference Committee recommends approval of the Report of Ad-Hoc Liaison Committee for State Governmental Agencies.
2. Your Reference Committee further recommends

that the liaison committee be commended for the scope of their activities.

3. Your Reference Committee recognized the importance of liaison with governmental agencies and recommends the continuance of the ad-hoc committee.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) RESOLUTION #1 — OPPOSITION TO CURRENT RULES AND REGULATIONS FOR NURSING HOMES (ADAMS COUNTY MEDICAL SOCIETY)

This resolution reads as follows:

WHEREAS, the continued increase of rules and regulations required by the State Department of Health for Nursing Homes have become a detriment and a threat to the welfare of Nursing Home patients by creating adversaries out of Nursing Home personnel and the patient's physicians, by requiring the Nursing Supervisors to sit at the desk and write instead of supervising the care of the patients, and by requiring the physician to give up his integrity and write nonsense material and things he cannot know, and to make visits and do other time-consuming things that he cannot justify by his own conscience, and

WHEREAS, this has continued to increase to the extent that physicians do not want to see patients in Nursing Homes, and it increased the Nursing Home cost by untold amounts, and decreased the morale of everyone concerned with taking care of the elderly; therefore be it

RESOLVED, that all physicians in the State of Nebraska declare a moratorium on doing any paperwork whatsoever in the Nursing Homes, except the writing and signing of orders, until a committee of the Nebraska Medical Association can meet with the Nursing Home Administrators and State Health Department, and work out a sensible set of rules and regulations for Nursing Homes that will benefit the patient, whereas this does not improve the quality of patient care, and be it

FURTHER RESOLVED, that a copy of this resolution be sent to all Nursing Home Administrators and physicians in the state and the State Department of Health.

Discussion on this resolution led the Reference Committee to acknowledge that there is a problem in this area, but we heard testimony to the effect that many of the objectionable regulations originate at the federal level.

Recommendations:

1. Your Reference Committee sympathizes with the paperwork problem, but does not feel a moratorium is the best solution and recommends that Resolution #1 not be approved.
2. Your Reference Committee further recommends that a copy of Resolution #1 be sent to the Director of the State Department of Health as an example of the sentiment of some physicians in the state.
3. Your Reference Committee further recommends in view of the excellent rapport and communication that exists that the Ad-Hoc Liaison Committee for State Governmental Agencies continue its liaison with the State Department of Health concerning solutions of these problems.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Following discussion, the Chair asked that in addition to the resolution, the Reference Committee report pertaining to this subject be sent to the Director of the State Department of Health. This was approved by the House, and this section of the Reference Committee report was adopted as amended.

(6) RESOLUTION #2 — DISABLED DOCTOR (BUFFALO COUNTY MEDICAL SOCIETY)

This resolution reads as follows:

WHEREAS, THE PROBLEM OF THE "Disabled Doctor" is becoming increasingly prominent nationally and some states, i.e. Georgia, have established or are establishing mechanisms for aid and rehabilitation in these particularly difficult situations, and

WHEREAS, such problems do exist in Nebraska and no mechanism exists for their management; therefore be it

RESOLVED, that the Nebraska Medical Association implement a plan to aid the "Disabled Doctor."

Your Reference Committee heard testimony that the Nebraska Medical Association Board of Councilors had approved unanimously a revised resolution and that it also has support of the Board of Directors of the Family Practice Association. This resolution reads as follows:

WHEREAS, the problem of the "Disabled Doctor" is becoming increasingly prominent nationally and some 32 states have established mechanisms for identification, aid and rehabilitation of these particularly difficult situations, and

WHEREAS, such problems do exist in Nebraska, and no mechanism presently exists for their management; therefore be it

RESOLVED, that the Nebraska Medical Association form an ad-hoc committee to prepare a plan to identify and aid the ill, disabled and incompetent physician. This plan is to be submitted to the House of Delegates at the 1977 Fall Session for approval and implementation.

Recommendation:

Your Reference Committee recommends adoption of the revised resolution.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Dr. Wilson moved to amend the second WHEREAS, by inserting the word "coordinated" between the words "no" and "mechanism." This was approved by the House, and this section of the Reference Committee report was adopted as amended.

(7) RESOLUTION #3 — BLUE SHIELD ACCEPTANCE OF MEDICARE BILLING FORM (PLATTE-LOUP VALLEY MEDICAL SOCIETY)

There was no testimony on this resolution specifically, and this resolution was considered in conjunction with Resolution #10. This resolution reads as follows:

RESOLVED, that the Nebraska Medical Association strongly urge the Nebraska Blue Shield to accept a copy of an itemized statement or a copy of Medicare Form 1490 for the billing of Medicare patients.

Recommendation:

Your Reference Committee recommends that Resolution #3 not be adopted.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved

by the House.

(S) RESOLUTION #10 — THIRD PARTY
INSURANCE FORMS (PLATTE-LOUP VALLEY
COUNTY MEDICAL SOCIETY)

This resolution reads as follows:

WHEREAS, a private medical office has become besieged with medical insurance forms for many years, and in most instances, the insurance companies have agreed to accept the AMA standard insurance form. This has not been true of Nebraska Blue Cross-Blue Shield. This form has always been relatively simple, but Blue Cross-Blue Shield of Nebraska would not accept the AMA's standard form, the peg-board standard form, or other super bill forms if the physician was a participating physician, and

WHEREAS, Blue Cross-Blue Shield insists that all offices use Blue Cross coding system which was different than the CPT codes, (Current Procedure Terminology). Nebraska Blue Cross-Blue Shield organization indicates that any form submitted other than their own form would receive low priority and payment would be substantially delayed, and

WHEREAS, Nebraska Blue Cross-Blue Shield has recently converted their system to the standard CPT codes but now they have added modifiers to the system. The addition of these modifiers creates extra effort on the insurance staff of the medical office. To this point, Blue Cross-Blue Shield still refuses to accept any insurance claim on any form other than their own and they are now insisting that a form also be completed for the patients which have Medicare extended coverage with Blue Cross-Blue Shield, and

WHEREAS, many private medical offices throughout the state receive a minimal amount of their income from Blue Cross-Blue Shield, but are yet forced to utilize non-uniform procedures and codes; therefore

BE IT RESOLVED, that the Nebraska Medical Association should request that the state insurance commissioner early investigate why "participating physicians" are currently being discriminated against. This discrimination arises from the non-acceptance of the standard insurance form, the standard peg-board insurance form, or any other super bill form which has the proper codes and terminology preprinted; and

BE IT ALSO RESOLVED, that the state insurance commissioner instruct Blue Cross-Blue Shield of Nebraska to accept the standard CPT codes without the various modifiers which to the best of our knowledge are not being requested by any other insurance company servicing Nebraska.

Your Reference Committee heard considerable discussion about the problems created in the physician's office by the new CPT (Current Procedural Terminology) codes recently implemented by Blue Shield. Your Reference committee also heard testimony to the effect that the portion of Resolution #10, appearing in the third WHEREAS, which states, "and they are now insisting that a form also be completed for the patients which have Medicare extended coverage with Blue Cross-Blue Shield" has been corrected. Further testimony was heard that Blue Shield is using CPT (Current Procedural Terminology) codes of which modifiers are a necessary part. However, the insistence of Nebraska Blue Cross-Blue Shield on using only their own insurance forms continues to create unnecessary problems as identified in this resolution for the physicians. It was the consensus of your Reference Committee that the intent of Resolution #10, as well as the intent of

Resolution #3, could be accomplished by the House of Delegates directing the Insurance and Prepayment Medical Care Committee to meet with Blue Cross-Blue Shield to resolve the problem of separate insurance forms and to urge Blue Shield to accept a standard form as accepted by other insurance carriers.

Recommendations:

1. Your Reference Committee recommends that the Insurance and Prepayment Medical Care Committee be instructed to meet with Blue Shield to resolve this problem.
2. Your Reference Committee further recommends that Resolution #10 not be adopted as written.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #5, AS A WHOLE AS AMENDED.

Respectfully submitted,
Dr. James P. Schlichtemier, Omaha,
Chairman
Dr. Russell J. McIntire, Hastings
Dr. Ralph L. Cassel, Fairbury

Reference Committee #6

Reference Committee #6 considered four reports and two resolutions. The Reference Committee submits the following report and recommendations:

(1) REPORT OF THE AD-HOC COMMITTEE ON PSRO

Your Reference committee reviewed the Report of the Ad-Hoc PSRO Committee with interest and wishes to thank this committee for its ongoing effort to keep members of the NMA informed of the developments in this program on the Federal and State levels. No testimony was heard or otherwise received promoting NMA embracement of a PSRO planning contract. We assume this silence would infer a lack of interest in future commitment to a PSRO planning contract under its current form, which seems to be in a constant state of flux. It is noteworthy that areas in 8 states at this point remain undesignated as PSRO units and that Georgia is the only other state which remains undesignated, statewide.

Testimony was heard relative to the fact that some State Medical Associations which have assumed PSRO planning contracts, due to the attendant expense of leasing of facilities and provision of computers (hardware) and software as well as personnel, finds themselves dependent on continuing the program and inclusion of Federal monies for their continued existence a necessity to their economic survival. The less than subtle "carrot" which was to entice the horse, now leads it, and the guise of "quality assurance" once heard in profundity in passage of the original law now is couched in subrogation of "cost containment" and "cost control."

In anticipation of renewed efforts by the Federal agencies to entice physician involvement in PSRO (an overt necessity to their success or failure) a panel of 6 individuals has been established on a national level to write criteria and regulations for establishing alternate PSRO's. The regulations are expected to be published later this fall, and the Secretary of HEW will begin designation of same during January, 1978. Mention is made that alternate PSRO's should represent their

area, and there needs to be a link to the physicians of the area. The following groups will be approached to establish alternate PSRO's:

1. Physician groups
2. Redesignate the PSRO area
3. Local organizations (state agency, county health department, medical schools)
4. Organizations located outside the state (other states, PSRO, etc.)
5. Health insurers

Your Reference Committee received information that only one group in Nebraska has shown any interest in being named as alternative PSRO, that being the Nebraska Department of Welfare. Discussion relative to this body handling PSRO functions in Nebraska was not generally favorable.

Recommendations:

1. That the Ad-Hoc Committee on PSRO continue to monitor and assess change and further implementation of the PSRO measures in other states.
2. That the Ad-Hoc Committee on PSRO be commended for their effort on behalf of the Nebraska physician in this important area and continue to provide information and recommendations as future development may dictate.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE CONSTITUTION AND BY LAWS COMMITTEE

This report was studied with interest by your Reference Committee and no testimony was presented by delegates relative to it outside Reference Committee members. Committee members were concerned with the underlined portions of the report, "and who has retired from active practice and/or related activities." A question exists as to whether this is prompted by economic loss (dues), or other unspecified reason. Since no argument appears in the body of the report, and addition of retirement from practice is a new concept in the Life Membership requirement, your Reference Committee recommends:

1. That this By-Law change should be returned to the Constitution and By-Laws Committee, and
2. Be resubmitted at the NMA Fall Session with complete explanation and/or justification for its inclusion.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded and discussion followed.

Dr. Papenfuss asked permission of the House to contact the County Medical Society regarding those requesting Life Membership based on 40 years in practice, and upon approval of the Board of Councilors, these would be effective retroactive to the date of request. This was approved by the House. This section of the Reference Committee report was adopted.

(3) REPORT OF THE HEALTH PLANNING COMMITTEE

Your Reference Committee heard considerable testimony from delegates and members of the Health Planning Committee relative to the status of the evolving draft of THE 1976 NEBRASKA HEALTH MANPOWER PLAN. Items from the NMA positional observation of this preliminary draft were reviewed

with interest. Testimony was received regarding the fact preliminary data supplied by varied geographic areas tho designated as incomplete and perhaps inaccurate in preliminary reporting was accepted as fact by state and federal agencies receiving such data (despite written disclaimers on each page). Question might well be raised as to the validity of original criteria for assessment of physician and allied health profession numbers needed in an area. The NMA analysis of Physician and Population Movement in Nebraska 1940-1975, was reviewed and discussed with great interest. A consensus was reached that physician (and other) movement in the state is synonymous with movement of the states population, and in particular, counties along Interstate Hiway 80 show striking evidence of growth (Hall, Buffalo, etc.) Discussion was presented that physician groups are growing and certain counties have expected physician placements in the near future that any manpower plan, when complete, possesses rapidly obsolete data perhaps before the final draft reaches print. Testimony was also heard that while local input was and is sought, that final plan development proceeds at the state level and that local input is later absent, unrecognized, or greatly modified.

Recommendations:

1. The Health Planning Committee be commended for its effort to keep abreast of developments in these programs and for providing input to them on behalf of the busy Nebraska physician.
2. That the Nebraska Medical Association utilize its collected data whenever necessary to refute inaccurate statistics compiled by others regarding numbers and distribution and levels of care rendered or necessary in the state.
3. That NMA through the Health Planning Committee closely monitor and participate in further development of the 1976 Nebraska Health Manpower Plan and prepare a brief, succinct summary report of such positive and negative levels of the plan which should be promulgated to Nebraska physicians for their consideration and later input.
4. All Nebraska physicians should heed the request to be aware and to participate in health planning processes whenever and wherever these opportunities present.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF THE MEMBERSHIP COMMITTEE

This report was reviewed by your Reference Committee and no testimony was presented to the committee. We were gratified to note that 75 new members have been welcomed in 1977. We note however that (County Society Membership page of the Handbook) from 31 December 1976, to 15 April 1977, we have sustained a 53 member net loss.

Recommendation:

Your Reference Committee therefore recommends that the Membership Committee redouble its new member solicitation efforts during the coming year.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) RESOLUTION #4 — NATIONAL HEALTH INSURANCE (GREATER OMAHA MEDICAL SOCIETY)

Testimony received by your Reference Committee on this resolution was totally in favor of its adoption. This resolution reads as follows:

WHEREAS, the AMA sponsored the re-introduction of its National Health Insurance bill AR 6224, into the 95th Congress as S 218, and

WHEREAS, the reasons for re-introduction brought out at the 1976 Annual Session of the AMA were based upon, 1) political expediency because the AMA had to be "for" something, and 2) the AMA needed an N.H.I. bill to insure a "seat at the conference table," and

WHEREAS, neither of these reasons is valid when weighed against the evils of a compulsory national health insurance; therefore be it

RESOLVED, that the Nebraska Medical Association re-affirm its opposition to the AMA sponsored national health insurance bill.

Recommendation:

Your Reference Committee recommends the adoption of Resolution #4.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(6) RESOLUTION #11 — OPPOSITION TO HOSPITAL COST CONTAINMENT ACT 1977 (GREATER OMAHA MEDICAL SOCIETY)

Testimony received by your Reference Committee on this resolution was totally in favor of its adoption. This resolution reads as follows:

WHEREAS, the Hospital Cost Containment Act of 1977 which was introduced April 25th is designed to contain hospital costs and does not improve patient care services, and

WHEREAS, the increase in hospital costs can be directly attributed to increases in the minimum wage, hospital and professional liability insurance premiums, and in the intensity of patient care in addition to the impact of a highly inflationary economy during the past decade, and

WHEREAS, little federal government recognition or support has been given to the wide-spread cost containment activities promoted by hospitals which include shared medical, management, and supportive services, and

WHEREAS, the cost of the administration through a burgeoning bureaucracy of this new proposal will negate the Act's projected savings, and

WHEREAS, the provisions of the legislation are patently discriminatory toward voluntary, nonprofit hospitals and will have the effect of converting privately owned and charitable hospitals into public utilities; therefore be it

RESOLVED, that the Hospital Cost Containment Act of 1977 is discriminatory and selective and is in effect the enactment of wage and price controls which will result in the rationing of health care to the people by either bankrupting hospitals or forcing them to curtail the quality and quantity of services; and be it further

RESOLVED, that the Nebraska Medical Association oppose this legislation and a copy of this resolution be sent to all Nebraska Congressmen, the American Medical Association, the American Hospital Association, the Catholic Hospital Association, the Protestant Hospital Association, the National Medical Association, the American College of Hospital Administrators and the Nebraska Hospital Association.

Recommendation:

Your Reference Committee recommends the adoption of Resolution #11.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #6, AS A WHOLE. This was approved by the House.

Respectfully submitted,
Dr. Richard A. Cottingham, McCook,
Chairman
Dr. Gordon D. Francis, Grand Island
Dr. F. F. Paustian, Omaha

Dr. Kelley was granted permission of the floor and indicated his concern of the confidentiality of records between patient and physician. He said that records should be complete, however sometimes these could be damaging to the patient if they were not confidential. The Chair ruled that this should be studied and reported back to the House of Delegates.

There being no further business, the House was recessed until Wednesday morning.

THIRD SESSION

The third session of the House of Delegates was held May 4, 1977. The meeting was called to order by the Speaker, Dr. McFadden.

The call for a quorum showed 66 delegates present, and the meeting was declared in session.

Dr. McFadden called for approval of the minutes of the second session of the House of Delegates and these were approved.

Oral reports were presented by the following:
Dr. Bernard Korbitz, an oncologist, concerning laetrile
Mrs. Gordon Francis, Immediate Past President, Nebraska Medical Auxiliary
Dr. Richard E. Palmer, President, American Medical Association

Dr. McFadden called for a report from the Board of Councilors concerning Life Memberships, and Dr. Carlyle E. Wilson, Chairman, gave the following report:

"I shall not attempt to explain again the complex situation we're in concerning Life Memberships.

"Even the - and this is a new title received in the House Monday - the 'prestigious' Board of Councilors found itself strongly confused by this problem. Accordingly, it was decided to hold another session of the Board at the Highland Country Club Monday evening. John Goldner has told me that he always receives divine direction on those premises. I'm not sure he did Monday afternoon, but the Board did indeed receive guidance and voted to grant Life Membership to three Lincoln physicians. This morning we were informed by Drs. Papenfuss and Gorthey that four additional Lincoln physicians similarly qualify. Accordingly, the Board this morning, with a quorum of seven present and voting, agreed to include these names in our recommendation. They are as follows:

Dr. L. E. Marx, Lincoln
Dr. S. D. Miller, Lincoln
Dr. N. R. Miller, Lincoln
Dr. Howard Mitchell, Lincoln
Dr. R. E. Garlinghouse, Lincoln
Dr. Frank Cole, Lincoln
Dr. W. W. Carveth, Lincoln.

"We have utmost faith in our Constitution and By-Laws Committee chaired by Dr. Schlichtemier to unravel this problem and so direct the House this Fall."

This report was approved by the House of Delegates.

The report of the Nominating Committee was called for and the following slate of officers was presented:

President-Elect - Dr. Houtz G. Steenburg, Aurora
Councilors:

9th District - Dr. Joel Johnson, Kearney

10th District - Dr. Fred J. Rutt, Hastings

11th District - Dr. Berl Spencer, Ogallala

12th District - Dr. Calvin M. Oba, Scottsbluff

Speaker, House of Delegates - Dr. Harry W. McFadden, Jr., Omaha

Vice Speaker, House of Delegates - Dr. Chas. W. Landgraf, Jr., Hastings

Delegate to A.M.A. - Dr. C. J. Cornelius, Jr., Sidney

Alternate Delegate to A.M.A. - Dr. Louis J. Gogela, Lincoln

Delegate, North Central Medical Conference - Dr. Russell L. Gorthey, Lincoln

This slate of officers was unanimously approved by the House.

Dr. Chleborad introduced the following resolution from the Dodge County Medical Society, Subject - Opposition to Lottery:

WHEREAS, in April, 1977 there appeared in the Omaha World Herald and other news media, public announcements of a medical care lottery system, and

WHEREAS, certain practicing physicians in the Douglas and Dodge county areas have elected to use a lottery, a form of gambling, to generate funds purportedly to produce income for the financing of medical clinics, medical students, residents, etc., and

WHEREAS, physicians in Douglas and Dodge county feel that it is not in the best interests of ethical physicians to be involved in the promotion of gambling in the State of Nebraska, and

WHEREAS, the Nebraska Medical Association does not condone or promote gambling for the advancement of medical care or medical education, and

WHEREAS, physicians in the State of Nebraska do not feel it is in the best moral tone and ethical standards to permit medical clinics, students and

residents to be involved by act or association with a gambling enterprise; therefore be it

RESOLVED, that the Nebraska Medical Association is opposed to involvement of its physicians, students or residents in any gambling enterprise; and let it be further

RESOLVED, that the Nebraska Medical Association notify the media that they do not condone or approve of such practices including lotteries; and let it be further

RESOLVED, that this matter be investigated by the Nebraska Medical Association to determine if this is a violation of its code of ethics.

Dr. McFadden called for the wishes of the House on this resolution, as it could not be considered by a Reference Committee. Dr. Retelsdorf moved that this be referred to the Policy Committee for study and implementation. This was approved by the House.

Dr. Nye moved that the House of Delegates go on record to commend the University of Nebraska College of Medicine and the Creighton University School of Medicine for their intensive and exceptional efforts in updating the education of the Vietnam physicians, with special recognition to Dr. Margaret Faithe for her extreme dedication to the program. This was approved by the House.

Dr. Cornelius said he thought that Resolution #11, Opposition to Hospital Cost Containment Act of 1977, should be introduced by our delegation at the A.M.A. House of Delegates. The House approved this motion.

Dr. Cornelius said he would like to call attention to two other items for information of the House. He said the A.M.A. House of Delegates voted to attempt to accommodate PSRO legislation in Anaheim several years ago and at that time it handed out a list of 18 or 19 amendments which would be vigorously pursued for changes or repeal in sections of the PSRO legislation. This list has now increased to 25 and the success ratio so far in altering that legislation is zero.

The other item was a brochure which was being distributed by the National Education Association to educators. It was moved that a copy of this be sent to each member of the House of Delegates, and this was approved.

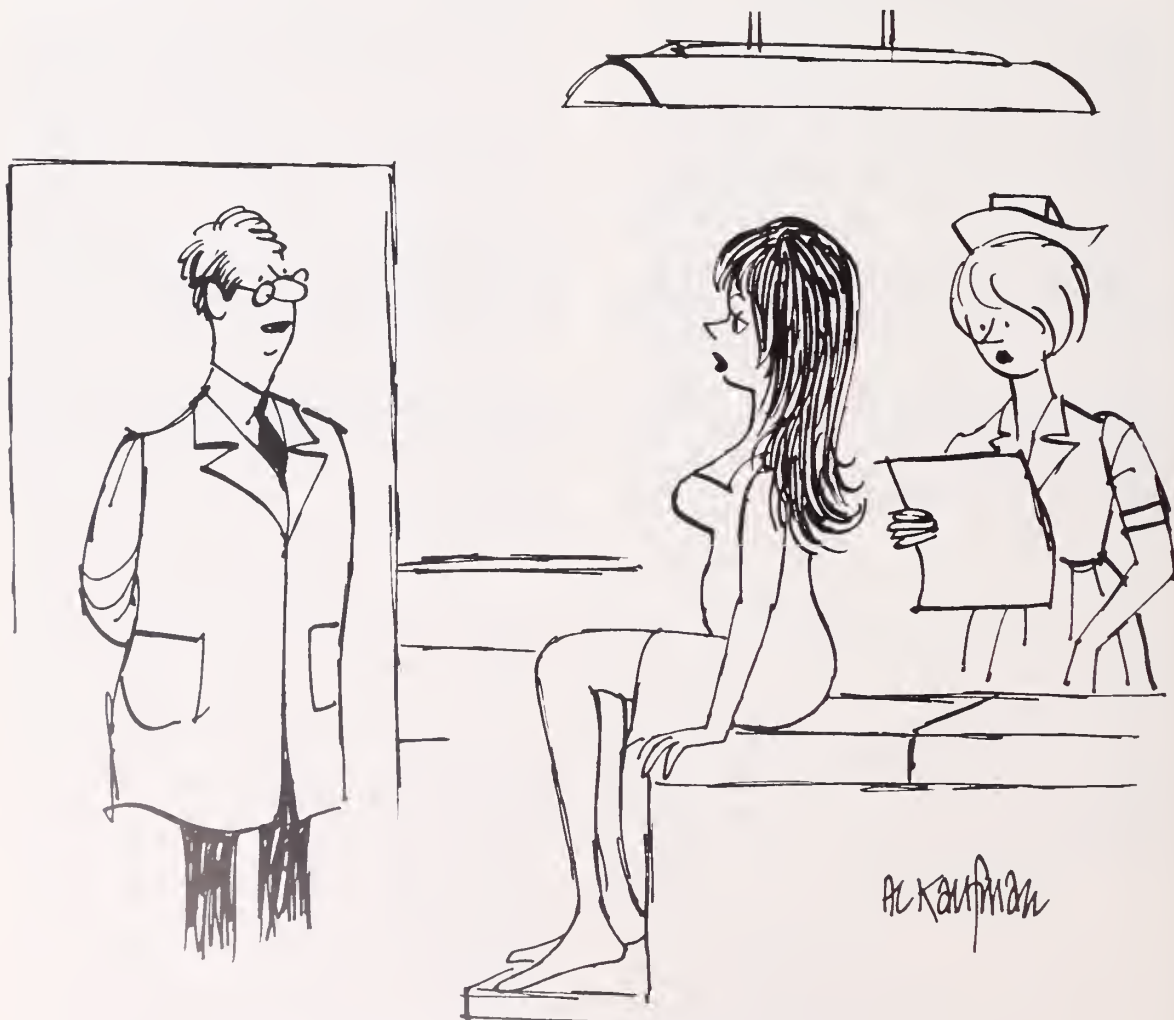
There being no further business, the House was adjourned.

Do Fat Babies Stay Fat? — E. M. E. Poskitt (Institute of Child Health, Birmingham, England) and T. J. Cole, *Br. Med J* 1:7-9 (Jan 1) 1977.

Two hundred three children who had been a part of a study of feeding practices and weight in infancy were reviewed five years later. Although overweight but of normal length in infancy, the children were tall, but not overweight for height. Using a weight-height index, 14% of the infants were obese and a further 26% overweight. At childhood review, only 2.5% were obese and another 11% overweight. Three out of five obese children were also obese infants, but only one in nine obese infants is an obese 5-year-old. It is concluded that the majority of fat infants return to normal weight by 5 years of age.

Asthma Deaths in Children, a Continuing Problem — C. M. Mellis (Royal Children's Hosp, Melbourne, Australia) and P. D. Phelan, *Thorax* 32:29-34 (Jan) 1977.

The clinical and pathologic features of five children who died of asthma over a recent 12-month period are reported. All had severe, chronic asthma requiring maintenance corticosteroid therapy. Three had been receiving beclomethasone dipropionate by inhalation and these had acute inflammation of the tracheobronchial tree a necropsy. Adrenal atrophy was found in all four cases examined histologically, despite normal short tetracosactrin tests in three of these shortly before they died. The need for high-dose corticosteroid by mouth for exacerbations of asthma in those weaned from oral steroids is emphasized by these deaths.



"I have some good news and some bad news, Miss Brown. The good news is that you can now stop taking your birth control pills . . ."

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BactrimTM DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days



- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
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- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (Federal Register, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

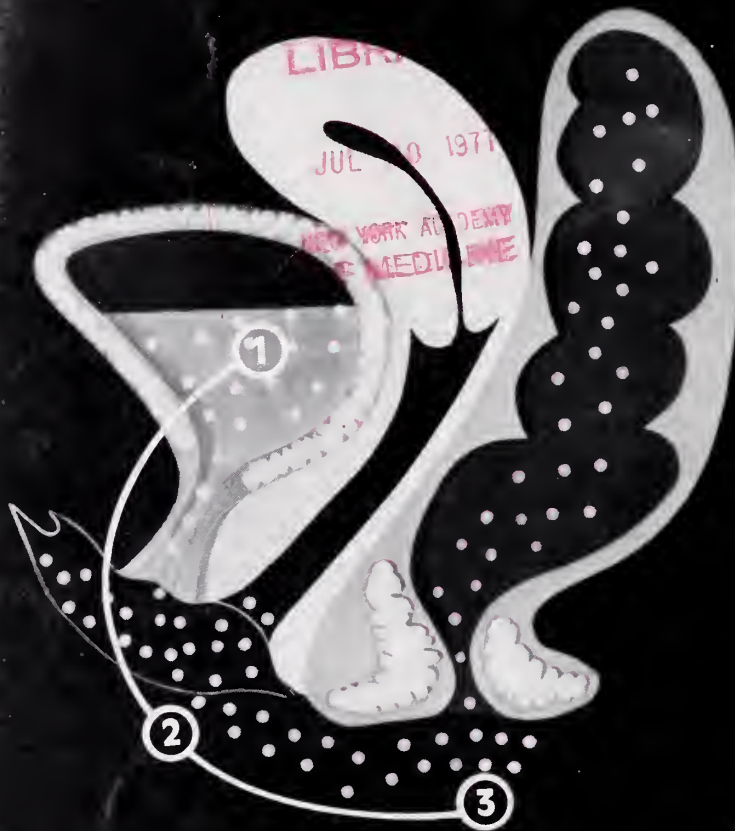
Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

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BALCONY

*The Nebraska
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August, 1977



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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
3901 So. 27th St., Lincoln 68502

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Each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer); 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer); and 25 mg phenobarbital in the immediate release layer.

Each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine HCl, and 2 mg phenobarbital; the alcohol content is 15%.

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TEDRAL® Elixir

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Tedral Elixir: each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine hydrochloride, and 2 mg phenobarbital; the alcohol content is 15%.

Indications. Tedral, Tedral SA, and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal or perennial asthma.

Tedral SA (Sustained Action) offers the convenience of b.i.d. dosage.

Tedral Elixir is convenient for persons who may have difficulty in swallowing tablets.

These Tedral formulations are adjuncts in the total management of the asthmatic patient. Acute or severe asthmatic attacks may necessitate supplemental therapy with other drugs by inhalation or other parenteral routes.

Contraindications. Sensitivity to any of the ingredients; porphyria.

Warnings. Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

Precautions. Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

Adverse Reactions. Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

Average Dosage. *Prophylactic or Therapeutic.*

Tedral: *Adults*—One or two tablets every 4 hours. *Children*—(Over 60 lb) one-half the adult dose.

Tedral SA: *Adults*—One tablet on arising and one tablet 12 hours later. Tablets should not be chewed. *Children*—Not established for children under 12.

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Supplied. Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

Tedral SA: Double-layered, uncoated, coral/mottled white tablets in bottles of 100 (N 0047-0231-51) and 1000 (N 0047-0231-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0231-11).

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Full information is available on request.

What is "Normal" Blood Pressure in the Aged? — T. N. Babu et al (Oak Forest Hosp, Oak Forest, IL 60452) *Geriatrics* 32:73-76 (Jan) 1977.

Blood pressure was studied in two groups of institutionalized persons ranging in age from 50 to over 100 years. The first group comprised 199 selected normal persons; patients with any disease, including systemic hypertension, were excluded. The second group consisted of 947 unselected persons; those with acute illness were excluded. In the first group, systolic pressure increased slightly, but diastolic pressure did not change with increasing age. The blood pressures were still within the limits that were considered normal for younger persons. In the second group, both the systolic and the diastolic pressures progressively decreased with age, so that the former fell below normal limits.

Treatment of Gastric Cancer With Combined Surgical Resection and Chemotherapy — J. L. Franz and A. B. Cruz, Jr. (Univ of Texas Health Science Center, San Antonio, TX 78284) *J Surg Oncol* 9:131-138 (March) 1977.

A series of 156 patients with gastric cancer during a 15-year period were reviewed retrospectively to determine the effectiveness of combined surgery and adjuvant chemotherapy. The patients were divided into a nine-year prechemotherapy period and a six-year chemotherapy period. Review of the data revealed an increase in the incidence of distant disease. The utilization of surgery as the only mode of treatment declined. Combination surgery and adjuvant chemotherapy utilization increased. Comparison of survival for surgery vs adjuvant chemotherapy, expressed as percent survivors for each year, revealed an increase at one and two years with no difference at three years for all stages. A similar comparison for patients with regional spread showed an increase at one, two, and three years with no difference thereafter. The five-year survival was 5% for both groups. Surgery and adjuvant chemotherapy increases the survival rates at one, two, and three years but does not affect the long-term results.

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NOTE: See following page for full prescribing information.

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It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.



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Indications

This is not an innocuous drug. Strict attention should be paid to the indications and contraindications.

CHOLOXIN (sodium dextrothyroxine) is an antilipidemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease.

The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication.

Before prescribing, note the following: Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation. There may be an additive effect. This additive effect may possibly stimulate the myocardium excessively, in patients with significant myocardial impairment.

CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly. Careful monitoring of the total effect of both drugs is important.

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Contraindications

The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated:

1. Known organic heart disease, including angina pectoris; history of myocardial infarction; cardiac arrhythmia or tachycardia, either active or in patients with demonstrated propensity for arrhythmias; rheumatic heart disease; history of congestive heart failure; and decompensated or borderline compensated cardiac status.
2. Hypertensive states (other than mild, labile systolic hypertension).
3. Advanced liver or kidney disease.
4. Pregnancy.

5. Nursing mothers.

6. History of iodism.

Warnings

CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time. Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment.

In the surgical patient, it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated.

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease, treatment should be initiated with care. Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required. This drug may increase the oxygen requirements of the myocardium, especially at high dosage levels. Treated subjects with coronary artery disease must be seen at frequent intervals. If aggravation of angina or increased myocardial ischemia, cardiac failure, or clinically significant arrhythmia develops during the treatment of hypothyroid patients, the dosage should be reduced or the drug discontinued.

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine). As with all thyroid drugs, hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients.

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency. This condition may be enhanced in patients receiving thyroid analogues. These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease.

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones, it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation. During emergency surgery in euthyroid patients, and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy, the patients should be carefully observed.

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents. Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs. If sodium dextrothyroxine is later withdrawn from

patients who had required an increase of insulin (or oral hypoglycemic agents) dosage during its administration, the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state.

When either or both impaired liver or kidney function are present, the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results.

Usage in Women of Childbearing Age

Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug; it can be given to those patients exercising strict birth control procedures. Since pregnancy may occur despite the use of birth control procedures, administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother. Teratogenic studies in two animal species have resulted in no abnormalities in the offspring.

Precautions

It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein-bound-iodine levels. These increased serum PBI values are evidence of absorption and transport of the drug, and should NOT be interpreted as evidence of hypermetabolism; similarly, they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine). PBI values in the range of 10 to 25 mcg% in treated patients are common.

If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy, the drug should be discontinued.

A few children with familial hypercholesterolemia have been treated with CHOLOXIN for periods of one year or longer with no adverse effects on growth. However, it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol-lowering effect is observed.

Adverse Reactions

The side effects attributed to dextrothyroxine therapy are, for the most part, due to increased metabolism, and may be minimized by following the recommended dosage schedule. Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease; the incidence of adverse effects is increased in hypothyroid patients, and is highest in those patients with organic heart disease superimposed on the hypothyroid state.

In the absence of known organic heart disease, some cardiac changes may be precipitated during sodium dextrothyroxine therapy. In addition to angina pectoris, arrhythmia consisting of extrasystoles, ectopic beats, or supraventricular tachycardia, ECG evidence of ischemic myocardial changes and increase in heart size have been observed. Myocardial infarctions, both fatal and non-fatal, have occurred, but these are not unexpected in untreated patients in the age groups studied. It is not known whether any of these infarcts were drug related.

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia, nervousness, palpitations, tremors, loss of weight, lid lag, sweating, flushing, hyperthermia, hair loss, diuresis, and menstrual irregularities. Gas-

trointestinal complaints during therapy have included dyspepsia, nausea and vomiting, constipation, diarrhea, and decrease in appetite.

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease), hoarseness, tinnitus, dizziness, peripheral edema, malaise, tiredness, visual disturbances, psychic changes, paresthesia, muscle pain, and various bizarre subjective complaints. Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine by some investigators. Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient, although its relationship to CHOLOXIN therapy was not established.

In several instances, the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine); a worsening of peripheral vascular disease, sensorium, exophthalmos, and retinopathy have been reported.

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants, such as warfarin or Dicumarol, on prothrombin time, thus indicating a decrease in the dosage requirements of the anticoagulants. On the other hand, dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section).

Dosage and Administration

For adult euthyroid hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day. The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, if that dosage level is indicated to effect the desired lowering of serum cholesterol.

When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication, the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, preferably the lower dosage. The maximum in patients receiving digitalis therapy is 4 mg.

For pediatric hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0.1 mg (100 mcg) per kilogram. The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals. The recommended maximal dose is 4 mg daily, if that dosage is indicated to effect the desired lowering of serum cholesterol.

If new signs or symptoms of cardiac disease develop during the treatment period, the drug should be withdrawn.

How Supplied

CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1, 2, 4, and 6 mg tablets.

Cigarette Smoking and Diabetic Retinopathy

— M. E. Paetkau et al (Dept of Ophthalmology, Univ of Alberta, Edmonton, Alberta, Canada) Diabetes 26:46-49 (Jan) 1977.

A sample of 181 diabetics with diabetic retinopathy was statistically investigated with regard to association of smoking with proliferative retinopathy. The numbers of patients with proliferative retinopathy rose with increasing tobacco consumption. In nonsmokers no association existed between diabetes duration and patients with proliferative retinopathy, but in smokers the number with proliferative retinopathy rose with increasing diabetes duration.

Selective Mediastinoscopy — J. L. Acosta and F. Manfredi (VA Hosp, Indianapolis, IN 46222), Chest 71:150-154 (Feb) 1977.

Mediastinoscopy is often utilized for staging bronchogenic carcinoma. Whether it should be used routinely or selectively is controversial. Fifty-four patients with bronchogenic carcinoma were prospectively assigned to one of two groups based on the presence (group A) or absence (group B) of one or more of the following criteria: (1) central location; (2) mediastinal nodal enlargement; (3) involvement of laryngeal nerve; and (4) noncentral location plus linear stranding toward the hilum. Mediastinoscopy was performed on all patients in group A. Thoracotomy for definitive staging was performed on those patients in group A with negative mediastinoscopic findings for neoplasm and on all patients in group B. Criteria 1, 2, and 3 were found to be valid; 22 of the 27 patients in group A who had any of these criteria had positive mediastinoscopic findings for neoplasm. Criterion 4 per se was found to be invalid; all seven of the patients in group A who had this isolated finding had negative mediastinoscopic findings for neoplasm and had resectable lesions. Twenty-three of the 27 patients in group B had no mediastinal involvement and had resectable lesions. These data indicate that selective mediastinoscopy using criteria 1 through 3 reduces the number of negative examinations and unnecessary thoracotomies to a minimum.

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Carcinoma of the Cervix — J. R. Goellner (Mayo Clinic and Mayo Foundation, Rochester, MN 55901) *Am J Clin Pathol* 66:775-785 (Nov) 1976.

One hundred ninety-six cases of patients with invasive squamous carcinoma of the cervix treated from 1960 to 1970 were evaluated for survival. All patients had been followed for at least five years; treatment was surgical, irradiation, or a combination of the two. The probability of survival was compared with grade and histologic type, with clinical staging taken into consideration. No significant difference in prognoses was found between grades or histologic type of tumors within any stage. As expected, advanced stages were associated with poorer survival rates than localized disease. Within patients who had stage I disease, metastatically involved lymph nodes did not significantly diminish the probability of survival.

Small Bowel Obstruction in Pregnancy — L. M. Hill (Mayo Clinic, Rochester, MN 55901) *Obstet Gynecol* 49:170-173 (Feb) 1977.

Four gravid patients with small bowel obstruction secondary to adhesions were seen during a 17-year span (1955 through 1971). Three of these patients had been referred for definitive diagnosis and treatment. During the time span under investigation, there were 25,189 deliveries at this institution. As the incidence of surgical procedures increases, small bowel obstruction is likely to be seen more frequently. One must consider this diagnosis in any pregnant patient with an abdominal scar and the characteristic signs and symptoms of obstruction. When mechanical intestinal obstruction has been diagnosed, the recommended treatment is surgery regardless of the gestational age or status of the fetus.

We shall have no more men of genius.

Victor Hugo.

Neus hates busybodies and those who do too much.

Euripides.

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nausea and vomiting often associated with vertigo*.

Dosage for Vertigo*—The usual adult dosage for Antivert/25
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BRIEF SUMMARY OF PRESCRIBING INFORMATION

INDICATIONS. Based on a review of this drug by the National Academy of
Sciences—National Research Council and/or other information, FDA has classified
the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with
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Possibly Effective: Management of vertigo associated with diseases affecting the
vestibular system.

Final classification of the less than effective indications requires further
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CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during preg-
nancy or to women who may become pregnant is contraindicated in view of the
teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation
has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./
kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate.
Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hyper-
sensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients
should be warned of this possibility and cautioned against driving a car or operating
dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children
have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred
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More detailed professional information available on
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*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey.

and economy

When prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*), in the absence of obstructive uropathy or foreign bodies. Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms may diminish the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than 2 months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A streptococcal infections and will not eradicate or prevent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions (agranulocytosis, aplastic anemia and other blood dyscrasias) have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under 2 years with chronic renal disease.

Precautions: Use cautiously in patients with impaired renal function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); allergic reactions (erythema multiforme, skin rashes, epidermal necrolysis, urticaria, serum sickness,

pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis). *Usual adult dosage:* 2 Gm (2 DS tabs or 4 tabs or 4 teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially; then 0.25 Gm/20 lbs *b.i.d.* Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: DS (double strength) tablets, 1 Gm sulfamethoxazole; Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.

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MAKES SENSE

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

* Warning

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids).

Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis.

'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions:

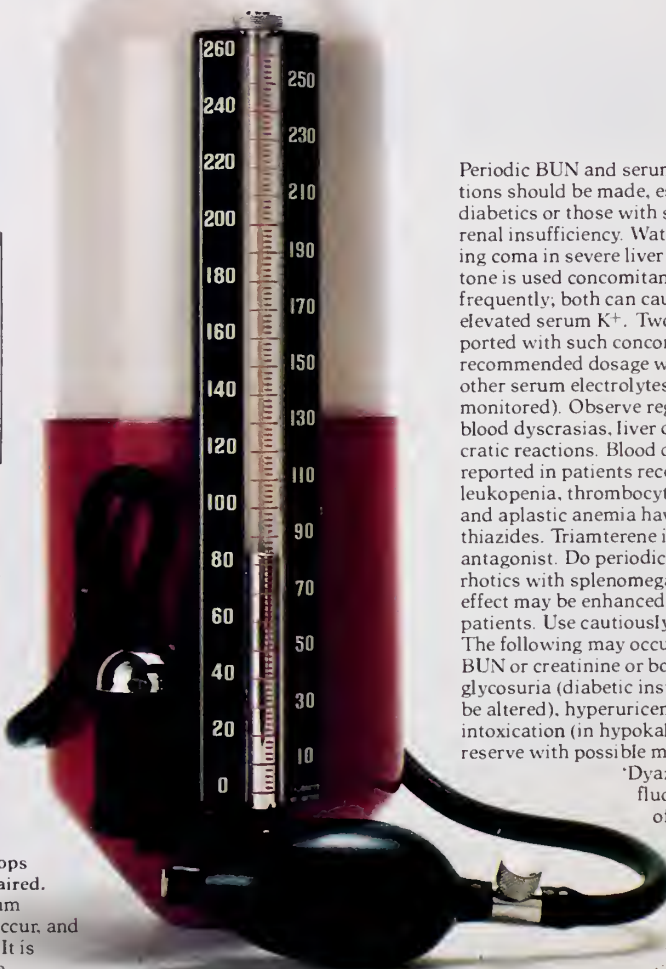
Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

**FOR LONG-TERM CONTROL
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Prevention of Eczema — D. J. Matthew et al
(J. F. Soothill, Institute of Child Health,
30 Guilford St, London, England) Lancet
1:321-324 (Feb 12) 1977.

In a prospective study of the development
of reagenic allergy, infants of allergic parents
were either subjected to an allergen-avoid-
ance regimen had less eczema at six months
and one year than did the control group.
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An alcoholic has been lightly defined as a man who drinks more than his own doctor.

A. L. Barach.

Extreme remedies are very appropriate for extreme diseases.

Hippocrates.

Sickness seizes the body from bad ventilation.

Ovid.

And as in men's bodies, so in government, that disease is most serious which proceeds from the head.

Pliny the Younger.

Diseases desperate grown,
By desperate appliance are reliev'd,
Or not at all.

Hamlet.

This apoplexy is, as I take it, a kind of lethargy, an't please your lordship; a kind of sleeping in the blood, a whoreson tingling.

Henry IV.



"I think he's in shock, Doctor. He went to the supermarket with me today for the first time in five years."

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*Czapke EE: JAMA 235:636, 1976.

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Adverse Reactions: Most frequent adverse reactions are listed below. Some patients taking salicylates develop nausea and vomiting. Hypersensitivity may be manifested by skin rash or anaphylactic reaction. With these exceptions, most side effects occur after repeated administration of large doses; include headache, vertigo, ringing in ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin.

Phenacetin side effects usually result from overdosage. Cyanosis, acute hemolytic anemia, skin lesions, and fever may appear with toxic doses. Continued abuse may lead to renal damage.

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Usage in ambulatory patients. Caution patients that these products may impair mental and/or physical abilities required for performance of potentially hazardous tasks such as driving a car or operating machinery.

Interaction with other CNS depressants. Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) may exhibit additive CNS depression; when used together reduce dose of one or both.

Usage in Pregnancy. Safe use is not established. Should not be used in pregnant patients unless potential benefits outweigh possible hazards.

Precautions: Head injury and increased intracranial pressure. Respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal condition. These products or other narcotics may obscure the diagnosis or clinical course of acute abdominal conditions.

Special risk patients. Administer with caution to certain patients such as elderly or debilitated patients and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, or prostatic hypertrophy or urethral stricture.

Adverse Reactions: Most frequently include lightheadedness, dizziness, sedation, nausea, and vomiting; more prominent in ambulatory than in nonambulatory patients; some may be alleviated if patient lies down; others include: euphoria, dysphoria, constipation and pruritis.

Drug Interactions: CNS depressant effect may be additive with that of other CNS depressants. See Warnings.

For symptoms and treatment of overdosage and full prescribing information, see package insert.



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1971—The Senate approved
the amendment today, 94 to 0, and sent it to the House.

WASHINGTON, Aug. 26, 1935—The Social Security Bill, a broad program of unemployment insurance and old age pensions, was signed today by President Roosevelt in the presence of those chiefly responsible for its passage. The bill will be put into effect through Congress.

Mr. Roosevelt called it "the cornerstone of our economic program," which is being built on the basis of the new Social Security Act.

the Draft Ends No

WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

"Oh, what a great day this can be in history!"

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy—and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information

is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

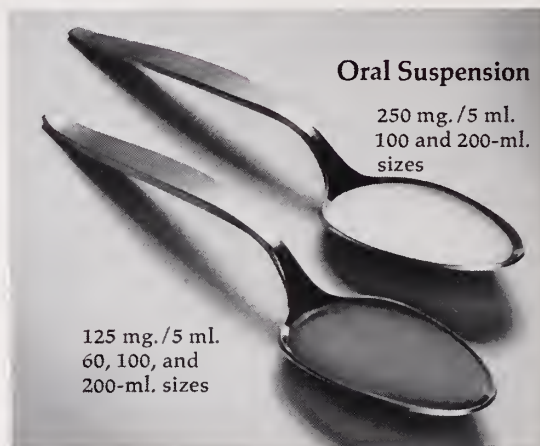
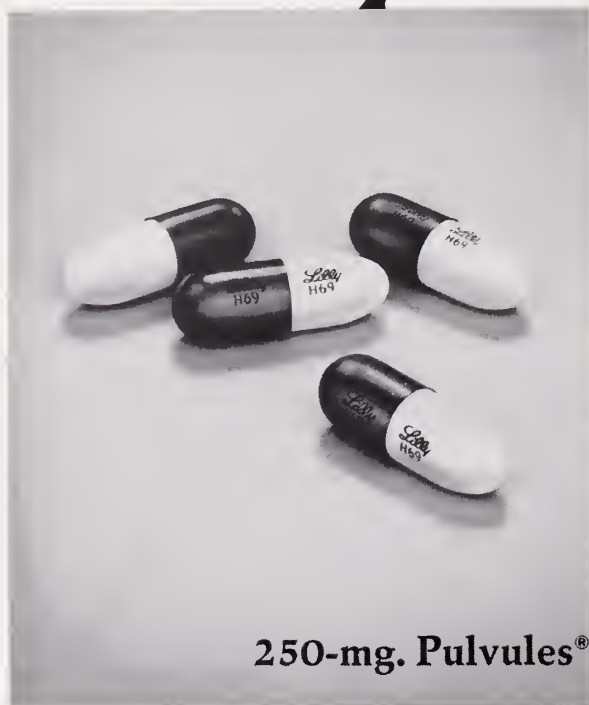
The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

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WHEN YOU HAVE WHAT THE PATIENT HAS

If the doctor does not feel well, will he be more sympathetic toward the patient who calls him out at night, or is he apt to be less kind? Is he going to think that the patient might have waited until morning, or will he identify himself with the patient and go from apathy to sympathy?

Let us suppose that you are examining someone for disability evaluation, and he has a peptic ulcer and you have a peptic ulcer. Will you think, I know just what this poor fellow is going through, I know how it hurts; and will your rating be generous? Or will you say to yourself, I've got what he's got, and I'm working, and I'm not asking to be excused from work, and I'm not suggesting that I be given money to compensate me for my hurting or for my restricted diet.

If things have gone badly at home and office and are getting on your nerves, how will you feel when your patient comes in to tell you about his nervousness? If you are an internist and you have a disk syndrome, and he has one, too, will you think, I'm putting up with it, why can't he, it's not all that bad; or will you rate his disability higher than you might have, if your back and leg weren't hurting?

Does not your opinion of the patient, and disability evaluation in particular, and they are the same, I think, depend on how you feel at the time? And when your illnesses coincide, what then?

—F.C.

HOW QUICK IS DEATH?

I have read more than I care to about sudden death: all death is sudden. One instance you are alive, and in the twinkling of somebody else's eye you are dead. And the time between your last living moment and your first dead one is infinitely small; all death is sudden.

A headless chicken will senselessly run for a while; is it still alive, and which part is alive, the head or the trunk? Does a

guillotined person die instantly? How soon is a hanged man dead? When the firing squad's victim is pulseless, is he already dead? Or does his brain think for a while and finally sleep?

If the nails and hair do not get the message for days, but go on growing, is their owner alive? I think not. You are dead when your brain is dead, it seems. But does death come instantly when it seems to; is the cyanide victim dead with the first breath?

If you go on thinking, you are living. If you hear, without responding, you are still in this world. What looks like death comes quickly. As for the rest, we do not know.

—F.C.

BREATHE IT OR EAT IT

As you walk back to your table, carrying an open-face chicken-salad sandwich, an uninformed clod coughs at you. You could have looked forward to this, this fellow is always to be found on your way back, and he will always cough at you as you go by. He has been waiting for you, and for the chance to infect you; he wants only to give you what he has, even if it is finally to send you out of this world with the help of microorganisms he has been growing.

You walk through a sea of air as you pass him, and you are trapped, or you may be able to hold your breath for a while, although his cough or sneeze has probably contaminated other parts of the room you must still go through. But what of your sandwich? Your friend has surely involved the chicken-salad as well as the air in his deadly business, and with the same microbes. If you have already inhaled these tiny deadly creatures, will you suffer more if you ingest them? And if you have been successful in holding your breath long enough to get past him, will it hurt you to eat the sandwich he has surely spoiled?

From my own profound study of microbiology, I say that you could not avoid breathing in the nasty bacilli and viruses, and that germs that make you sick if you swallow them are usually found on other people's hands. But they can be in their throats and lungs, and you may want to eat a different sandwich if there is one, and if you can get it past the cougher, but I don't think you can do it. He will be waiting for you.

—F.C.

THE PHYSICAL VS THE ENGLISH LANGUAGE

The physical examination report is *sui generis*, like the sonnet and flagpole-sitting; its uniqueness grows out of its war with the English language.

We say the heart sounds are distant, when we mean they are faint. The heart is right there, and all you mean is that you can barely hear it.

We say *initially* for first, and *physical examination reveals* for no purpose.

We say the patient has an emphysematous chest, when we mean the chest bulges and doesn't move much; but we are not diagnosing emphysema.

We say pain is elicited on pressure when we mean he is tender.

We say the patient is cyanotic, when we mean he is blue. Cyanosis is a bluish discoloration of skin and mucous membranes due to excessive concentration of reduced hemoglobin in the blood. But we don't know if he has an excess of reduced hemoglobin in the blood; we just see that he is blue.

We say he has tachycardia, when we should report the pulse rate.

We say he is short of breath, and we do not count his breaths.

We write limited range of motion, but we do not tell if he can stand or walk.

We say he is obese, when he is fat; and we do not weigh him.

We say lower extremities when we mean legs, and upper extremities for arms.

We say he is plethonic when he is red.

We say something is bilateral, and the right side is worse than the left, which makes it seem very bad; and we could have said that the left side is better than the right, which means just the opposite, only we have said the same thing.

—F.C.

DO SCHOOLS APPLY TO STUDENTS?

Let us say that two medical schools are equally good, and that the same students apply to each. One will accept a hundred students while the other will take in another, and a different, hundred applicants.

In a sense, then, the schools are applying to the students, since school A chooses student R while school B admits pupil S. The students are choosing the schools, while at the same time the schools are choosing the students. When other departments of a university do it, it is called recruiting.

How does it come about that different but similar schools end with different freshman lists? If one student applies to many schools, then each school is applying itself to many students. Perhaps universities like students from far away, or they may prefer their own. Do some want minorities, or high grades, or doctors' children, or personality traits? I do not think so.

But when the more desirable student, having applied to two schools, selects one, the other school must then go to another applicant, and when this process is repeated at length, it is the school, finally, that is applying to the student. I wonder how many schools fought over me.

—F.C.

Total Hip Replacement in a Jehovah's Witness Using Hypotensive Anesthesia

INDIVIDUALS whose Jehovah's Witness religious beliefs prohibit blood transfusions have in the past been deprived of elective surgical procedures including total hip replacements for crippling deformities. However, with appropriate selection and careful use of hypotensive anesthesia, total hip joint replacement may now be performed without blood replacement and with reduced risk to the patient.

Case Description: The patient is a 78 year old woman who fell in December 1974, sustaining a femoral neck fracture. The fracture was treated by pin fixation, but because of nonunion and avascular necrosis the pins were subsequently removed and the femoral head was excised to produce a Girdlestone type of arthroplasty (Figure 1). After femoral head resection, the patient was bothered by pain and weakness, with inability to bear weight on the right hip joint, and total hip joint replacement was advised. However, she was told that the operation could not be performed without blood transfusion, and since she refused to violate her religious principles she continued to be disabled from her painful hip. When we first examined her in December 1975, she was an alert elderly lady who could walk with a cane for a few steps, but got about mainly by holding on to furniture and by hopping. Her right leg was 1½ inches shorter than her left. There was no evidence of infection in the right hip incision, but the patient had only ten degrees of internal rotation, 20 degrees of external rotation, and 80 degrees of flexion in the hip joint, all motions being moderately painful. Because of her inability to bear weight on the right hip, she had become essentially housebound, and she asked if something couldn't be done to relieve her problem. She was admitted for evaluation and consideration of total joint replacement but was found at that time to have an iron deficiency anemia, possibly due to long term use of Sterazolidin®, which she

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had been taking up to four times a day for her hip pain. The patient was also found to be hypothyroid, was advised to stop her previous pain medication, and was given sodium levothyroxine to achieve maintenance thyroid levels. She returned to clinic for follow-up three months later. At that time, her hemoglobin had increased to 11.5 grams, compared to the previous 10 gram level. She was found to be in good health except for her right hip problem, and wished to proceed with total hip replacement. Consequently, after the patient was advised of the risk from hypotensive anesthesia in her elderly age, we agreed to perform the operation without blood or blood component replacement. Preoperatively, iron dextran injections were given over a three day period to maintain her reticulocyte production. A total hip joint was inserted on April 1, 1976, using hypotensive anesthesia (Figure 2).

Anesthetic technique: The patient was escorted unmedicated to the preanesthesia room where we began an intravenous solution of 5 percent dextrose and Ringer's lactate, using an 18 gauge catheter. We then medicated the patient intravenously, using 0.5 mgm of atropine and 60 mgm of meperidine. One gram of Keflin was added to the intravenous drip for prophylaxis during the surgical procedure. Anesthesia began at 0800 using 10 mgm of meperidine followed by 140 mgm of thiopental sodium. She was denitrogenated with 100 percent oxygen for 5 minutes and received 3 mgm of curare intravenously to prevent fasciculation from

succinylcholine. Three minutes later she received 60 mgm of succinylcholine, 3ml of 4 percent lidocaine topically to the trachea, and was intubated with a #34 oral cuffed endotracheal tube. Anesthesia was maintained with 3 liters of nitrous oxide, 2 liters of oxygen, and 0.5 to 1 percent halothane in a circle system. During anesthesia we monitored central venous pressure with a 16 gauge catheter inserted into the left antecubital vein and fed into the superior vena cava. To monitor cardiovascular and renal status we used continuous two lead electrocardiogram, a 20 gauge percutaneous catheter in the left radial artery, and a Foley catheter in the bladder. We also monitored heart sounds and rhythm continuously with an esophageal stethoscope and esophageal temperature with a yellow spring thermometer.

We made the incision at 0835 with the patient in the left lateral position. Her blood pressure fluctuated between 100 to 120 over 60 to 80 diastolic during the surgical approach, while her heart rate remained at approximately 80 beats per minute. At 0905 we induced hypotension using a trimetaphan (Arfonad®) drip during insertion of the hip prosthesis. We stabilized the patient's pres-

sure at 80/50 and maintained this level until 1015 for 70 minutes. Measured blood loss was 700 ml without blood replacement. Fluid replacement consisted of 2600 ml of crystalloid and 500 ml of Dextran 70 to maintain cardiovascular stability. Total urine output for the 2 hour procedure was 240 ml. During this time the patient's body temperature fell to 34°C and remained at that level.

The patient was taken to the recovery room in satisfactory condition where she awakened rapidly. Her vital signs remained stable and she was discharged to her room at 1420.

Postoperative Course: Immediately postoperatively the patient's hemoglobin was 6.8 grams. At 1900 on the evening of her operation her urinary output had decreased to 20 ml per hour for which she received 20 mgm of Lasix® along with 500 cc of Dextran 70® intravenously. She responded promptly to this medication with urine output rising to 240 ml. Her subsequent postoperative course went smoothly. Eventually the patient's hemoglobin fell to 5.2 grams during the week after her operation before it began returning to normal levels. During the time her hemoglobin measurement was low, she felt quite well and was able to progress with



Figure 1

Anteroposterior roentgenogram showing patient's hip which was painful one year after resection of the femoral head. A fragment of the femoral head and pin used for fracture fixation are evident in acetabulum.

physical therapy in the usual manner following total hip replacement. Her reticulocyte count increased to 9.2 percent, and she was discharged 2 weeks after surgery with her hemoglobin at 7 grams. We continued the patient on oral iron at home and subsequently she returned to outpatient clinic where her hemoglobin had come back up to preoperative level. Two months after the operation, she was walking with a cane and had no complaints regarding her hip.

Discussion

Induced hypotension is a technique which has been surrounded by much controversy in the past. However, it is now apparent that the technique can be safe and effective for a number of problems when used under controlled conditions and with adequate monitoring by individuals knowledgeable in the techniques employed. The advantages of deliberate hypotension in anesthesia, especially in a 78 year old patient such as this lady, include: 1) reduced blood loss during the surgical procedure thereby 2) reducing the need for blood transfusions, 3) providing

more technical ease for the surgeon, 4) diminishing the anesthetic requirements, and 5) modifying the systemic effects of the acrylic bone cement during total hip replacement.^{1,2} Age is no longer considered as a specific contraindication to the method.^{3,4}

Contraindications to the technique are: 1) previous cerebral vascular accident, 2) abnormal kidney and liver function, 3) gross anemia and reduced blood volume. Relative contraindications have been considered to be heart failure and coronary artery disease as well as hypertension and respiratory insufficiency.

Careful patient selection and respect of contraindications are paramount, as is careful attention to detail. Proper position is important and pressure points should be adequately protected. Extremes of head tilt should be avoided, since excessive upward tilt of the head can cause cerebral anoxia, while extreme downward tilt of the head may lead to congestion and possible cerebral edema. A clear airway should be maintained at all times. Careful monitoring, especially of the aged patient, is essential and should include: 1) intra-arterial catheterization for blood pressure monitoring and for blood gas analysis, 2) constant EKG monitoring with at least Lead II and perhaps Lead V to measure heart rhythm and T-wave changes, 3) central venous or pulmonary artery wedge pressure to judge adequacy of cardiac function, of fluid replacement, and hydration, 4) temperature monitoring, and 5) urinary output measurement. Blood gases should be monitored periodically. Also because the hypotensive technique causes vasodilation, the patient is susceptible to environmental temperatures and with air conditioning in the operating room the usual tendency is for the patient to become hypothermic, adding to the risk of the method. The level of induced hypotension depends upon the condition of the patient. In young healthy individuals with no evidence of systemic disease, the blood pressure is maintained at no lower than 60 to 70 systolic. In the elderly patients such as this lady, the minimum systolic blood pressure should be no lower than 80.

Most of the reported mishaps associated with induced hypotension occur during the postoperative period and are generally re-



Figure 2

Anteroposterior roentgenogram of patient's hip after total joint replacement.

lated to instability of cardiovascular system, depression of the respiratory system, or increased depression from the hypothermia. Consequently the patient must be monitored closely during the postoperative period to insure that the cardiovascular and respiratory systems return to normal and stabilize.

With careful selection, observation of indications and contraindications and attention to details, patients such as this whose religious beliefs prohibit blood transfusions can still be offered the surgical technology to relieve significant crippling disabilities. Efforts to work within constraints imposed by Jehovah's Witness principles have provided

impressive physiologic demonstration of body adaptability to extreme blood cell loss provided blood volume is maintained.

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Computer Computation of Complex Time-Dose and Modality Relationships in Radiation Therapy

Part II

In Part IV⁸ Kirk, Gray, and Watson attempt to normalize between the assessments of fractionated and continuous therapy. In doing this they consider area and volume correction factors. These factors modify the values of uncorrected CRE.

Time gaps in treatment regimes⁹ (Part V of the series by Kirk, Gray, and Watson) are evaluated in the final paper. The authors obtain an expression which describes the decay of CRE occurring during an interval in treatment. They recognize that some of the effect on the tissue by a dose of radiation can be rapidly repaired at the intracellular level. The calculations then quantitate the magnitude of repair with time so that a final dose can be calculated that results in an equivalent radiation effect to an uninterrupted course of therapy.

The CRE achieved up to the interruption in therapy:

$$R_a = q D_a N_a^{-0.24} T_a^{-0.11}$$

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The gap in a course of radiation therapy is described by the formula:

$$y(G) = e^{-0.008 G}$$

y = Decay constant

G = Number of days gap

The radiation effect (CRE) remaining after the gap in the course of therapy (R_g):

$$R_g = R_a y(G) = R_a e^{-0.008 G}$$

R_g = value of CRE on the day before commencement of therapy

Following these calculations the dose must then be determined that will give an equivalent effect after the gap. One such method follows:

CRE (cumulative radiation effect) for the entire course of therapy = R_x (CRE of the originally intended schedule)

$$R_x = q \text{ Pb} d_b (N_b + n_b)^m$$

q = RBE (Relative biological effectiveness of the radiation being used)

Pb = repetition parameter

N_b = number of fractions to be given after the gap

m = 0.65

d_b = daily dose

n_b = number of fractions which would have to have been given during the final course to achieve the CRE, R_g

In practice, calculating and working with this complicated, but highly versatile system involves mathematical procedures often associated more with advanced physics than medicine. These procedures basically involve establishing equivalencies between different treatment schedules whenever any treatment parameters are changed. It has been found that the system is sufficiently valid by comparison of its overall agreement with previous empirical clinical data to make the long and difficult calculations worthwhile. The formulae have been programmed into the PC-12 computer to make the everyday use of the mathematical concept readily available and practical.

Example:

A patient was prescribed to receive 5000 rads in five weeks. However, because of complications, the therapy had to be stopped at 3000 rads and the patient received no therapy for two weeks. At the end of this period therapy was resumed at the rate of 750 rads per week. What total dose is necessary to achieve the biological equivalent of the original treatment plan?

This problem can be solved by a manual calculation which is outlined as follows:

$$\text{Total Dose} = 3000 + 150 \left[\left(\frac{\left(\frac{35}{25} \right)^{-0.11} 200 (25)^{0.65}}{\left(\frac{7}{5} \right)^{-0.11} 150} \right)^{\frac{1}{0.65}} - \left(\frac{\left(\frac{21}{15} \right)^{-0.11} 200}{\left(\frac{7}{5} \right)^{-0.11} 150} (15)^{0.65} e^{(14)(-0.008)} \right)^{\frac{1}{0.65}} \right]$$

It is obvious that the mathematical formula is complex, and since the construction of the equation for solution is individualized and different for each case, the solution requires many hours of work, even for simple examples such as is shown. Furthermore, few people are capable of solving such a complex equation.

In order to make this data readily available, and because of frequent need for such corrections, and in an effort to eliminate mathematical mistakes, a project was designed to use an interactive dedicated computer, the PC12, to assist with the necessary calculations.

The program was designed such that a series of multiple choice questions are displayed on the screen of the computer. The operator then uses the keyboard to answer the series of multiple choice questions. In answering the questions the computer is directed to solve the particular problem of interest. The computer requests certain pertinent data and initiates the actual complex calculations. The program allows the problems to be solved by anyone with a basic knowledge of the data and the solution desired, but there is no need for the operator to have the necessary mathematical ability to derive the formula. This program, then, allows error-free calculations and the saving of countless hours of laborious effort.

To solve the complex formula illustrated above on the computer certain displays are shown on the screen. The operator must supply answers to these displays. The process of solving the problem can be illustrated in the following dialogue.

Display on computer screen:

"Type 1 for standard calculations, 2 for radium, 3 for radon, 4 for two areas treated by one port, and 5 for time gap calculations."

The operator must then respond to this display on the screen by typing in the appropriate answer.

In this case the answer that must be typed is "1."

The dialogue will be illustrated by:

Display: (This indicates the message on the screen of the computer to which the operator must respond.)

Answer: (This indicates the response to the display by the operator).

The entire sequence of solving the problem using the computer program is broken into three steps. Step 1 is to calculate the CRE for the original treatment schedule (5000 rads in 5 weeks). Step 2 is to calculate the CRE at the time of interruption of therapy (3000 rads). Step 3 is to apply the time gap correction and then calculate the additional total dose necessary at the new daily dose rate to achieve the same biological equivalent as the original treatment schedule.

Step 1: Display (On computer screen)

"Type 1 for standard calculations, 2 for radium, 3 for radon, 4 for two areas treated by one port, and 5 for time gap calculations."

Answer: (Typed by operator - this response is also displayed on computer.) Operator types "1."

Display: "Answer questions with a zero if answer is unknown. Computer assumes 5 treatments per week if other data is not supplied. Type the total number of treatments."

Answer: "25"

Display: "Type the total dose in rads."

Answer: "5000"

Display: "Type the total number of days."

Answer: "35"

Display: "Type CRE."

Answer: (The operator does not know the CRE since this is one of the unknowns to be solved. The operator indicates this to the computer by striking an appropriate key which means a solution is required.)

Display: (This is the solution asked for by the operator). "1562 is the computed CRE."

Step 2: Display: "Type 1 for standard calculations, 2 for radium, 3 for radon, 4

for two areas treated by one port, and 5 for time gap calculation."

Answer: "1"

Display: "Answer questions with a zero or leave blank if answer is unknown. Computer assumes 5 treatments per week if other data is not supplied. Type the total number of treatments."

Answer: "15"

Display: "Type the total number of days."

Answer: (No answer need be supplied, computer will assume 5 treatments per week.)

Display: "Type CRE."

Answer: (An unknown. Operator asks for solution).

Display: "Computer assumes 5 treatments per week with no time off. 1121 rads is the computed CRE."

Step 3: Display: "Type 1 for standard calculations, 2 for radium, 3 for radon, 4 for two areas treated by one port, and 5 for time gap calculation."

Answer: "5"

Display: "This program calculates a correction for time gaps in therapy and interrelates the dose received from different radiation sources. Type the CRE calculated by the preceding parts of this program that corresponds to the first course of therapy. If unknown type zero to return to initial display for CRE calculation."

Answer: "1121"

Display: "Type the time gap between courses of therapy measured in days."

Answer: "14"

Display: "1002 is the time altered CRE. Type 1 for CRE calculation and 2 for dose calculation."

Answer: "2"

Display: "Type 1 for external beam and 2 for radium."

Answer: "1"

Display: "New course of therapy. Type the dose per treatment."

Answer: "150"

Display: "Type the number of treatments per week."

Answer: "5"

Display: "Type the total desired CRE."

Answer: "1562"

Display: "2889 rads is the additional dose required."

SUMMARY

A series of complex formulas developed by Kirk, Gray, and Watson have been programmed into a PC12 computer. A relatively inexperienced person with minimal mathematical knowledge can determine correction factors for courses of external radiation therapy of various fractionations, correlate radium therapy and short-lived interstitial radiation therapy with external therapy, correct for gaps in radiation therapy, and also equate fractionated and continuous therapy.

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The ABCs of Child Abuse and Neglect

CHILD abuse and neglect is a major problem in child health care today.^{1,2} These pathetic and unfortunate victims are the symptoms of families in distress. More children die today from child abuse and neglect than from accidental poisoning.³

It is not the purpose of this paper to discuss the psychological ills and disruptions which lie behind child abuse and neglect, but rather to focus the physician's attention on the early detection when first seeing the infant or young child for routine health care, or when first examining the traumatized child. The ABCs of child abuse and neglect may be briefly stated as follows: The age of the child coupled with the attributes of both parents and child when presenting with evidence of abuse and neglect in a crisis situation set the stage for the physician to be aware and concerned.

A. -Awareness-

The physician's index of suspicion is the most important single attribute. Once aware of the problem, the other pieces of

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the puzzle usually fall into place with effort and diligence. The index of suspicion includes the following: the parents' history is at variance with the clinical findings; reluctance or inability of the parents to give any information, or each parent gives a different version of the accident; multiple visits to various doctors and hospitals; the history of family discord, alcoholism, divorce or separation, coupled with financial stress or other psychological problems. When suspected, all cases by Nebraska law must be reported to the law enforcement agency and if available the Child Protection Unit.

-Age of the Child-

While child abuse and neglect can occur at any age, it is more prevalent in the young nonverbal child who is not yet able

to flee the wrath of the battering parent. Almost two thirds of the cases occur in the first two years of life.⁴

-Attributes of the Child-

These include prematurity, birth defects or other handicaps, the hyperactive child and the unwanted child.

-Attributes of the Parents-

Parents who as children were victims of child abuse and neglect; who have low esteem and a high dependency on others, yet are frequently isolated and alienated; who are hostile, punitive, and demonstrate impulsive behavior; who expect a child to achieve more than his developmental status, and who indicate a fear of loss of control; who are alone, especially the mother with no support and beset with financial problems.

B. -Battering-

Bruises, burns, abrasions, hematomas of soft tissue in various stages of healing; dislocation or fractures of the extremities. Fractured ribs are also common and frequently show various stages of healing; x-ray evidence of subperiosteal hemorrhages, old-healed periosteal calcifications, epiphyseal separations or periosteal shearing; signs of general neglect — such as poor skin hygiene, malnutrition, irritability or withdrawn personality; the eyes may show some conjunctival hemorrhages, a "black eye" and the fundus may show hemorrhages and retinal detachment; coma, convulsions, and death; the neurological signs will vary according to location and extent of the injury.

C. -Crisis-

Usually there is a crisis situation in the family which produces enough stress to trigger the abuse episode. The crisis may range from financial collapse, desertion, to the complaint that the child won't stop crying.

-Concern-

The physician must fulfill his responsibility; medical, moral, and legal, to protect the child and overcome any reluctance to report when reasonable evidence exists. In addition, the physician can help the community recognize the problem and to urge colleagues to report suspected cases to the Child Protective Service Unit of the local Welfare Department and to the local law enforcement agency. The physician can instruct young parents on parenting skills and in anticipatory guidance.

Children have been abused and neglected since time immemorial and is basically the result of parental failure. Persuasion and education will go far in helping the parents cope with the problems of child rearing. An accepting, nonpunitive approach coupled with the therapeutic modalities needed to serve the child and family will go far to rehabilitate the family unit in contrast to the punitive approach. The most difficult aspect for the health professions is to realize that the majority of these decompensating parents love their children. In our study of child abuse and neglect in Omaha Douglas County from 1967-1973, we found that two thirds of the cases were rehabilitated on an average of eleven months of multidiscipline services, such as family counseling, social services, employment training programs, etc.⁵

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Diabetes Mellitus — Approach to Diagnosis

PART II

4. Clinical Classification

Diabetes mellitus, as would be expected of a diverse and systemic disorder, has been subject to numerous classifications. Juvenile (JODM = juvenile onset diabetes mellitus) and adult-onset (AODM = adult onset diabetes mellitus) separations derive from the age of onset. This is a commonly used approach. Classically, the juvenile form is characterized by an abrupt, symptomatic (often with ketoacidosis) onset under age 15 with exogenous insulin required for treatment. The majority of these patients show a partial or total remission (off insulin treatment) for weeks to months before the appearance of the total diabetic state characterized by insulinopenia and hyperglucagonemia. Typically, the adult-onset form is detected in those over 40 who are usually free of symptoms referable to the metabolic component of diabetes. These patients are usually overweight and most have hyperinsulinemia and varying degrees of insulin resistance. They are not prone to ketoacidosis. One problem with this classification is that the adult onset form can be detected in approximately 20% of siblings of juvenile diabetics. Likewise, overt diabetes requiring insulin occurs in the adult, and with increasing frequency in those with onset over the age of 70.

Operationally, we prefer to separate diabetes mellitus into

- 1) Insulin-dependent Diabetes Mellitus: IDDM
Most children
Some adults
- 2) Insulin-independent Diabetes: IIDM
Most adults
Some children

This separation is arbitrary but it is clinically useful. Treatment of IIDM is diet and for the IDDM group, diet plus insulin. However, since diabetes mellitus is, in many patients, a progressive disorder, a given patient may change from IIDM to IDDM. Less commonly, the IDDM may revert to the IIDM form, a change reflecting the dynamic

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state of the metabolic component of diabetes mellitus.

5. Frequency: It can be estimated that about 5% of all people have demonstrable diabetes mellitus as defined by glucose intolerance. IDDM, with clinical onset before age 15, occurs in approximately 1 of 2,500 births. The IIDM form occurs with increasing frequency with age. At any age the frequency is higher — 20% or more — in those with clinical features which serve to identify the high risk group (Table 1). The frequency may be as high as 50% among adults hospitalized on a general medicine service.

6. Laboratory Diagnosis: Glucose Tolerance Testing

This discussion will focus on oral glucose tolerance assessment since this is the currently established approach applicable to those without overt diabetes.

A. Fasting Blood Glucose (FBS)

This is the most frequent glucose determination, usually as part of an automated chemistry profile. Two or more consecutive values above 120 (whole blood) or 134 (plasma) mg/dl are indicative of diabetes mellitus. The sensitivity is low and 80% of those with subclinical or chemical diabetes (Fig. 2) will not show fasting hyperglycemia.

We recommend that a single abnormal FBS (plasma glucose between 120 and 200 mg/dl) be followed by a three hour oral glucose tolerance test. This is an arbitrary position but of value since the marked hyperglycemia observed with a 3 hour glucose tolerance test should leave no doubt in the mind of the physician or the patient (Fig. 5) Values over 200 mg/dl will be easily confirmed as abnormal and

diagnostic (fasting and non-fasting hyperglycemia, and glycosuria).

B. Oral Glucose Tolerance Test

A properly performed 3 hour (five hour if reactive hypoglycemia is suspected) glucose tolerance test is the cornerstone of diagnosis. Criteria for interpretation (Table 3) are empirically derived from findings in active individuals under standardized conditions. The most widely used criteria in the United States are the U.S.P.H.S. (Wilkerson) and those of Fajans and Conn.

Interpretation requires a consideration of the following:

1. Procedural Factors

a. Time of day

Testing should be done in the morning after an overnight fast. Afternoon glucose tolerance testing has been suggested to be useful because of greater sensitivity. However, afternoon testing does not meet the requirement of standardized conditions and hence there are no established criteria for interpretation.

b. Glucose load

Different glucose loads used by investigators under standard conditions are shown in Table 3. For adults, it is generally agreed that 75 or 100 g. of glucose, or glucose-equivalents, give comparable results. We recommend the use of a palatable, well tolerated test solution containing 75 g. of glucose equivalents (such as Glucola), which should be ingested within 5 minutes. The unstandardized "2 hr. pc blood sugar" may be misleading.

c. Venepuncture technique

Tourniquets should be avoided, if possible. Blood glucose concentration may decrease by as much as 25 mg/dl with tourniquets left in place for 5 to 6 minutes.

d. Blood source

Most laboratories assay glucose on plasma or serum, usually with an

automated system. Plasma or serum glucose concentration is approximately 15% greater than that of whole blood. Capillary blood samples are convenient under certain conditions (especially small children) but values are not well established for comparison with venous blood or plasma over the entire range of glucose values. As an approximation, capillary blood glucose concentration equals venous whole blood in the fasting state but exceeds it by 25 mg/dl at $\frac{1}{2}$ hour, by 40 mg/dl at 1 hour and 30 mg/dl at 2 hours after glucose load.

e. Blood sampling

Blood should be added to tubes containing sodium fluoride (to suppress glycolysis) and, if plasma is desired, EDTA as an anti-coagulant. Serum or plasma samples should be assayed promptly or stored in the frozen state.

f. Method of glucose determination

The Hoffman ferricyanide technique is widely used for automated systems. This and the Somogyi-Nelson method (manual) give results close to true glucose values. Glucose oxidase methods measure true glucose and are the standard for comparison; they are used infrequently by clinical laboratories.

2. Activity. The criteria for interpretation were derived from studies in ambulatory individuals. These criteria cannot be applied to the severely ill (acute or chronic), bedridden or hospitalized patient. Abnormalities noted during an acute event (hospital) need clarification after recovery. For the chronically infirm the physician can usually make a judgment appropriate for the clinical situation by considering the fasting (is it consistently greater than 200 mg/dl) and post-prandial values (are these 200 to 300 mg/dl).

3. Diet

The major question is has the patient been eating. Virtually any "normal" diet will contain over 150 g. of carbohydrate,

an amount above which glucose tolerance is not affected by diet. For those who have not been eating, there is a need for an intake of 300 g. of carbohydrate daily for 3 days or longer.

For the hospitalized patient we recommend:

- a. Perform glucose tolerance testing on day 1 before diet is altered.
- b. For the person who has not been eating and who has normal fasting plasma glucose concentration, defer glucose tolerance testing until the individual has resumed eating.

4. Drugs

Few patients are taking no drugs when seen by physicians; thus we immediately depart from the conditions under which criteria were derived. Numerous drugs, by differing mechanisms, affect glucose metabolism. Some commonly used drugs which may produce or intensify glucose intolerance include:

1. Xanthines (hence no coffee or tea on day of test)
2. Nicotine (hence no smoking on day of test)
3. Diuretics (especially thiazides; also furosemide and ethacrynic acid)
4. Oral contraceptives
5. Adrenal cortical steroids
6. Diphenylhydantoin (Dilantin)
7. Indomethacin
8. Nicotinic acid
9. Chlorpromazine
10. Sympathomimetic amines (Epinephrine, ephedrine, Tedral, Marax, Sudafed, Dristan, Contac, most decongestants)
11. Diazoxide (Hyperstat)
12. Thyroid Hormone (excessive dosage beyond euthyroid range)

A major and unresolved question is whether glucose intolerance detected while a patient is taking a given drug represents diabetes mellitus which is "unmasked." This may be clarified by sequential observation and, when conditions permit, repeat glucose tolerance

assessment after all drugs have been stopped.

5. Stress

Physical or emotional stress (including trauma, surgery, myocardial infarction, strokes) may be associated with glucose intolerance. Definitive assessment should be done three to six months after recovery.

6. Age

Glucose tolerance decreases with age. The criteria for interpretation are specifically age limited: Fajans-Conn criteria apply to those less than 50. A reasonable adjustment for age is to add 10 mg/dl to the one and two hour values for each decade above age 50. Fasting glycemia changes very little with age (about 2 mg/dl per decade over 30).

7. Hormonal Status

Acromegaly, endogenous or exogenous adrenal steroid excess, pheochromocytoma, hyperthyroidism and estrogen excess (pregnancy or birth control pills) may intensify glucose intolerance. Glucose intolerance may vary during the menstrual cycle. Hypopituitarism, adrenal insufficiency and hypothyroidism can mask diabetes; the latter can become manifest, even abruptly, following endocrine replacement therapy.

8. Gastrointestinal abnormalities

Delayed gastric emptying associated with hypothyroidism, peptic ulcer disease, or alimentary tract surgery may cause a flat curve. Conversely, accelerated gastric emptying associated with hyperthyroidism, diarrhea syndromes, and gastrointestinal surgery may show a modified curve with early hyperglycemia (1 hr.) which may be followed by hypoglycemia.

9. Other illness. In severe liver disease and advanced renal insufficiency interpretation of glucose intolerance may be difficult. Diabetes of clinical significance will be reflected by fasting hyperglycemia.

C. Other Tests

A detailed consideration of other tests which have been utilized in the diagnosis of diabetes mellitus is beyond the scope of this review. There is a limited place for the intravenous glucose tolerance test (gastrointestinal disease or alimentary tract surgery) and the cortisone glucose tolerance test (equivocal findings with the oral glucose tolerance test in a patient where a diagnosis may aid in management). The tolbutamide tolerance test is of historical interest. Plasma insulin values following a glucose challenge are of interest but are not of established clinical usefulness. Tissue analysis (such as muscle capillary basement membrane) remains an investigational tool.

Summary

A diagnosis of diabetes mellitus *can be made* in most patients by considering the clinical features and the natural history of glucose tolerance in combination with the

results of a properly performed oral glucose tolerance test. At any one point of testing the results of a glucose tolerance test may be neither normal nor diagnostic of diabetes mellitus. In this group — about which diabetologists argue — clarification will usually become evident with sequential observation and repeated glucose tolerance assessment.

The greater challenge for us as physicians is to achieve an effective, individualized management plan for our patients who have — by unequivocal criteria — this common and chronic disorder.

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Athletic Training

THE NMA Subcommittee on Athletic Injuries is very pleased to announce through our NEBRASKA MEDICAL JOURNAL the approval and implementation of a curriculum at UNL to provide athletic trainers. This program is endorsed by the NATA and will provide very qualified personnel for helping physicians and coaches prevent and rehabilitate injuries. Utilization of these qualified people will circumvent pending federal legislation (Dellums "Athletic Safety Act," H.R. 16447, 1972).

Our committee has worked hard to achieve this program. We owe special thanks to committee members Doctor Sam Fuenning and George Sullivan as well as many of our other friends in the UNL Athletic Department.

A very good resume of the program by George Sullivan and Dennis Sealey is included with this article. We are hoping you will make yourself familiar with this

program. We further hope you will recruit qualified and interested high school young people for this program so we may begin to see them returning to our high schools as qualified athletic trainers.

Athletic Training Endorsement

Athletic training is a profession which contributes to the health needs of the athlete at all levels of competition. It develops, promotes, and maintains standards of education to ensure an adequate number of fully qualified and certified athletic trainers.

Athletic trainers are instructors who are medical technicians working directly under the supervision of a (team) physician and in co-operation with the coaching staff and administration of their schools. Although professional sports organizations and higher education institutions sponsoring sports programs have a professionally trained athletic trainer on their staff, few secondary and elementary schools sponsoring sports programs have a professionally trained person

on their staff to fill the position of athletic trainer. With the additional highly recommended professional preparation in a teacher education field, a trainer can serve in the dual capacity of teacher-athletic trainer in the secondary school system of the local community.

The National Athletic Trainers Association (NATA) has approved an undergraduate athletic training endorsement program at the University of Nebraska-Lincoln. This is a non-teaching endorsement program and was implemented in January, 1976. To make it an acceptably workable program, those people conducting the program receive direction, advice, guidance and supervision from two main areas (the medical profession and the NATA) and unqualified use of existing facilities and programs in physical education and paramedical fields such as physical therapy.

The University of Nebraska Department of Physical Education and Recreation, by accepting the minimal requirements as suggested by the NATA in the physical education curriculum, will help to relieve an established need for competent athletic training on the high school level. The department will be able to assure prospective employers that graduates qualified for a teaching license in a secondary education field will have an adequate background in the prevention and management of athletic injuries.

The NATA encourages the athletic trainer with the proper professional preparation and academic achievement to continue his/her education by completing at least a certificate course in physical therapy at an accredited school. The qualified combination of teacher-athletic trainer-physical therapist could assume the physical therapy duties for school districts and small communities in times of emergency.

The Role and Function of The Athletic Trainer

The athletic trainer is one of the most important individuals in a complete athletic sports program. His duties consist of prevention of injuries, immediate first aid for those that are injured, and rehabilitation procedures as directed by the team physician.

His skills are varied and include such things as taking care of cuts, scratches, abrasions, blisters, etc. He makes mouth pieces, injury pads, and possibly installs the face guards. He tapes, wraps, and pads. He is well versed in emergency procedures. Other duties include conditioning, rehabilitation, planning menus, supervising diets, and aids in the purchase and fitting of equipment.

In addition to his many skills and abilities he must be able to get along with the team physician, the coaches, the administration, and the athletes. It is the doctor's responsibility to diagnose and prescribe, the trainer's duty to carry out the doctor's orders and to keep the coach informed of the athlete's physical condition.

How to Become an Athletic Trainer

The most *fundamental requirement* to become a trainer is the sincere interest in athletics and the athletes well-being. You must have a certain amount of ingenuity and be able to work with your hands. Other necessary fundamentals would include: poise, confidence, cleanliness, common sense, and average intelligence. The last and one of the most important attributes would be that you aren't afraid to work.

High School offers the logical beginning, you should take subjects such as First Aid, Health, Biology, Physiology, Chemistry, Physics, and General Science. Working as a student trainer is highly recommended.

Student trainer camps and clinics are now available. Cramers of Gardner, Kansas offers a very fine correspondence course. Read all of the articles and books that pertain to athletic training. With this humble beginning you are off to a good start and your planning should be directed towards college.

Importance of Education

Education is the backbone of the training profession, and a well-qualified trainer is constantly striving to improve. To attain this goal the B.S. Degree should be followed by advanced education if possible. Constant reading, attendance of clinics, meetings, etc. will help to up-date the trainers thinking.

University of Nebraska Athletic Training Endorsement

The development of this program as an endorsement area has been achieved through the Department of PER, with considerable support from the Department of Athletics and the University Health Service in providing facilities for clinical experience and personnel for classroom instruction. Specific athletic training courses are taught and supervised by Certified Athletic Trainers and Physical Therapists.

Required Courses

Biology 101	General Biology (4)
Zoology 110	Elements of Physiology (4)
Anatomy 270	Human Anatomy (4)
Food & Nutri 151	Introduction to Nutrition (3)
P.H. 101	Elements of Health Promotion (3)
P.H. 170	Emergency Health Care (3)
P.H. 351	School Health Program (3) or Principles of Community Health (3)
P.E.R. 372	Kinesiology (3)
P.E.R. 283	Adaptive Physical Education (3)
P.E.R. 484	Physiology of Exercise (3)
Psych	(Recommend Ed Psych 261 and an additional 3 hours of Psychology) (6)
P.E.R. 335	Prevention and Care of Athletic Injuries (3)
P.E.R. 435	Advanced Studies in Athletic Training (3)
P.E.R. 495	Clinical Experience in Athletic Training (6)

NOTE: Those individuals wishing to pursue a teaching career must select, in addition to courses in the athletic training endorsement, an endorsement leading to teacher certification.

Recommended Courses But Not Required

Physics 121, 122	General Physics for the Health Professions
Chem 109, 110	General Chemistry
P.E.R. 310-319	Coaching Theory and Techniques
P.E.R. 326	Psychology of Coaching

P.E.R. 370

Organization, Administration, and Problems in Physical Education and Athletics

P.E.R. 371

Tests and Measurements in Physical Education

The primary objective of the program is to produce qualified personnel to perform the duties of a teacher-athletic trainer at the secondary school level. Completion of the program does not insure certification as an athletic trainer, but rather leads to certification upon completion of certification requirements of the N.A.T.A.

To become an NATA Certified Athletic Trainer, the student must complete requirements for a Bachelor's degree from an accredited college or university, complete an NATA approved curriculum (University of Nebraska-Lincoln), work a minimum of two years under direct supervision of an NATA approved athletic trainer, present proof of one year continuous associate or student NATA membership immediately to application for certification, and then pass the practical and written certification examinations. These examinations are given at designated sites and specific dates under the supervision of the NATA Board of Certification.

The Nebraska State Department of Education is the agency granting endorsement of athletic trainers in the State of Nebraska, provided the student meets requirements of an NATA approved educational curriculum. The University of Nebraska endorsement program is an NATA approved educational curriculum.

Employment Potential

High Schools

High schools offer the possibility of between 10,000 and 20,000 jobs. The high school trainer would be employed on the same basis as the coach. Primary duties would be teaching and extra duty would be athletic training.

The need for the high school trainer is apparent, but the number of available jobs will be in proportion to how well administrators recognize the need. Legislation, if passed, could cause a very sudden demand.

The NATA no longer requires a teaching license specifically in physical education or health. If you should major in some other area, it is highly recommended that you should at least minor in either of the above mentioned areas. The more subjects you can teach the greater your chance for employment.

Colleges and Universities

Colleges and universities offer more prestige than most high schools, but generally speaking a good high school pays better than the average college. College jobs fall into three categories: (1) Staff assignments by the Athletic Department, (2) Combination teacher-trainer with teaching areas in Physical Education, Health, or Athletic Medicine. (3) Combination physical therapist-trainer with the morning duties usually spent in the student health center.

College jobs will be dependent on one's experience and reputation. The beginning trainer might start as an assistant in a large school or possibly as the head trainer in a smaller one. The college field remains rather stable, and the turnover in jobs slight, consequently the odds decrease on the chances of starting at this level.

Women's Athletics

Most universities, colleges, high schools, and even junior high schools have made rapid strides in the expansion of women's athletics. The need for qualified women athletic trainers to handle the area of health and injury care for female athletics is tremendous.

Although, at this point, there are only a small number of women trainers in colleges and high schools, school administrators are beginning to recognize the need.

At present most employment opportunities for women seem to be occurring mainly at the college level. There are numerous graduate assistantships available throughout the country and a growing number of full-time positions.

With the great rise in women's athletic competition, the future employment for women looks very promising.

NMA Subcommittee on Athletic Injuries
John E. Murphy, M.D.
Chairman

Down Memory Lane

1. All things summed up, I would like to express the opinion that the gall-bladder is practically unnecessary in the adult body and if it becomes the seat of disease, its complete removal is logical.

2. It is not too much to ask of us that we give more consideration to others of our profession than we have given in the past.

3. All diabetics must be taught. They must know something of the nature of the disease, the good prognosis with proper treatment and the poor prognosis with improper treatment.

4. State medical journals come nearer to the heart of the individual members of the profession than do the national journals. There is more of the individual appeal to the member, for it is his journal.

5. There are seven thousand women physicians in the United States.

6. An innovation, a complete semester's work for seniors, is being given at the University of Nebraska College of Medicine, during 16 weeks this summer, permitting students to graduate in February, instead of June, 1928.

7. Hypoglycemia is more dangerous than hyperglycemia.

8. By far the greatest factor in combating infection is immunity.

9. Many doctor's wives have told the editor that they always read *The Nebraska State Medical Journal* and several have said they read every part of it. The most hopeful sign for the doctor is the wife who is interested in her husband's profession and reads the state medical journal.

10. The new Stuart hospital, at Stuart, is about ready for occupancy.

Nebraska State Medical Journal
August, 1927

President's Page

Cost Containment

The Webster Dictionary would have you believe that containment is the policy of preventing the "expansion beyond prescribed limits" which is fine, but goes on to include "by employing political and propaganda pressure." In so far as containing the cost, I can live with that but it's the "pressures" that trouble me.

The 9% cost containment figure came from somewhere and I suppose there is a reason for 9 instead of 8 or 9½ but why the containment? Are we taking too good care of our people? Are they entitled to lesser care?

Medical care can be divided into the actual medical treatment and the services and facilities needed to determine and administer that treatment. The former I will call the active cost of medicine and the passive side is where you find all the other cost of medical care such as the bed needed while you are ill, etc.

The government has elected to take a bite right out of the active part of medicine by the MAC program by forcing the use of a cheaper medicine. Can't they realize that the price of a medicine sold by a company undulates from one drug to another to meet competition? It is much like stepping on an air mattress or a waterbed. When drug price is depressed in one place the price of another drug will rise in order for the company to survive. Any selection of a cheaper drug can at best be a stop gap measure in cost containment.

I would think that before government would interfere with quality medical care they would look at the other side of medical care cost, mainly the passive role cost of medical care.

Take beds for instance, most all hospitals have electric beds costing hundreds of dollars, very convenient and handy but probably not contributing one iota to the patient's recovery. Maybe the government could regulate this and make us use simple cots. It would cut down costs.



Oh yes, why make the room comfortable where that bed is, just use another blanket if that patient is cold, or open the window if it is too hot instead of turning on the air conditioning. Maybe the walls and halls in the hospital could be just washed with soap and water instead of painted every so often. That would save some money. And while talking about beds, why put one or possibly two beds in a room? Put them all in a big ward. Think of all the costs, for private toilets that would be saved not to mention the other construction costs.

Maybe, to save costs, you would initially get a set of clean linens on your bed and just keep the same ones until you went home instead of getting them changed everyday or as often as they get a bed soiled. I'll bet your linens at home don't get changed everyday. And if you need a nurse, just have a little hand bell to tinkle instead of those expensive electronic communications systems.

Sometimes a patient has to return to the hospital after being there and receiving his thermometer, a pitcher and a drinking glass as well as an emesis basin when he goes home. But do you think he's allowed to bring it back in a week or two when he comes back to the hospital? No! but have the government make them at least let you bring your thermometer, the kind the hospital recom-

mended in the first place. That would save some money.

What makes it necessary for you as a doctor to see a patient everyday while he is acutely ill in the hospital? The government could say see him every other day and thereby save $\frac{1}{2}$ of the fees paid to doctors for hospital visits. That should be a sure way to save money.

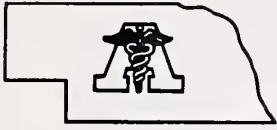
I mention all these crazy ideas because there is no end to the ways to cut costs but they all seem so asinine. The medical profession could be told to stop all further development of diagnostic and therapeutic measures as they will all be too expensive.

All the cheaper diagnostic and therapeutic methods have already been discovered long ago. Is this stagnation of medical science what your government wants?

I feel it is time for the medical profession and the public to let the government know what it wants. Contact your legislators and let them know how you feel, but remember you can't eat your cake and have it too.

Maybe, the simpler way to save medical dollars is to say the heck with medical care and just go off somewhere and die. Think of all the health care money you could save.

Arnold W. Lempka, M.D.
President, N.M.A.



The Auxiliary

ON-SITE MEMBERSHIP WORKSHOP

Shortly after the Leadership Confluence in Chicago in October, 1976, Julie Hertzler, the President-Elect of the Greater Omaha Auxiliary, decided she would like to enlist the help of the National Auxiliary in providing an On-Site Membership Workshop for her auxiliary after she assumed the presidency in May.

An On-Site Workshop affords the opportunity for any county auxiliary in any state to secure a national chairman for help in an area vital to the life of that auxiliary. The National Auxiliary provides this with no expense to any county auxiliary. In February, blanks were filled out and returned to Chicago requesting the help of the North Central Regional Membership Chairman, Edith Lessenden, in a Greater Omaha Membership Workshop on June 2.

Julie Hertzler spent much time and effort organizing, implementing, and publicizing this workshop. Bergen Mercy Hospital was the place chosen to hold the workshop. There, too, a buffet luncheon was served at noon. She and other members of her auxiliary decided they'd have a panel for the morning session, presenting the program *STRESS AND THE MEDICAL MARRIAGE*. Julie hoped to appeal to student and resident wives where she feels the Omaha Auxiliary can seek to involve and help these women by responding to them in fellowship.

The panel consisted of Edith Lessenden, moderator of the panel, Dr. Beverly Mead, Professor of Psychology at Creighton University, Linda Wax, the wife of a practicing

obstetrician and gynecologist, and Lynn Sanchez, whose husband is a resident physician at St. Joseph's hospital.

Defining the areas of stress and seeking ways of responding to these were addressed by each panel member. Among the ideas expressed by Dr. Mead in describing a physician husband was to identify him as a person with too little time whose main priority must be his practice. His family is in danger of becoming his "slipping priority."

After Linda and Lynn spoke about their own families, it was agreed that doctors need to budget time for their families, that wives can find an opportunity for some of his time by becoming involved in his recreation or hobbies, and that honesty in marriage and a quick dealing with problems becomes the best way of resolving inevitable conflicts in any marriage, especially the medical marriage.

After lunch Julie presented the problem of greater membership involvement for the Omaha Auxiliary. Edith Lessenden offered interesting and possible ways to help with this concern. The idea of using a patch, worn somewhere on a volunteer's clothing, identifying her as a doctor's wife and a member of the Greater Omaha Auxiliary, appealed to Julie.

Over forty people were present for the morning program, many of these were wives of resident physicians. Approximately twenty women stayed for the afternoon workshop. In evaluating this, Julie feels that one of the positive results was the involvement of many wives of resident physicians. She hopes this will be a continued thrust for her year as she sees the Greater Omaha Auxiliary as a vital link with the wives of medical students and resident physicians.

Dorothy Matson



Helen L. Hayes, (Mrs. O. R.)
State Chairman, Health Galleries
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(Continued on next page)



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Our Medical Schools

Creighton appoints Dr. Haller.

Michael J. Haller, M.D., a member of Creighton University medical faculty since 1966, has been appointed to the position of Associate Dean of the School of Medicine.

Medical Dean Joseph M. Holthaus, M.D., announced the appointment which is effective immediately.

Dr. Haller received his medical degree from Creighton in 1961 and has served as chairman of the Department of Family Practice since 1973.

As Associate Dean of Medicine, Dr. Haller will be charged with the administrative responsibility of development of clinical activities which are concentrated in Creighton's teaching hospitals and at the Creighton University Health Center.

During his tenure as chairman of the Department of Family Practice, Dr. Haller is credited with the establishment and development of the family practice program which included the establishment of Family Prac-



tice Model Units at key locations in the city.

Dr. Holthaus said that Fred J. Pettid, M.D., assistant professor of Family Practice, will serve as acting chairman of the department.

Picture Gallery

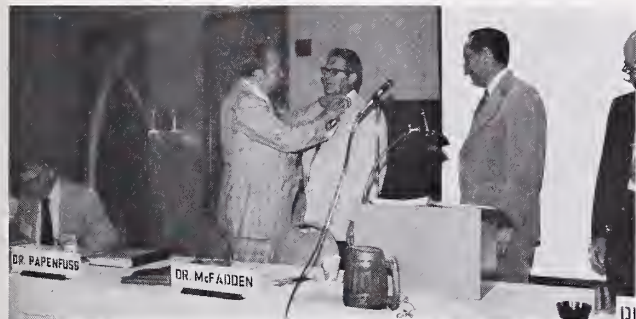
NMA 1977 ANNUAL SESSION



Doctors Harlan L. Papenfuss and Arnold W. Lempka escorting Doctor Houtz G. Steenburg to the podium.



President-Elect, Houtz G. Steenburg, M.D. and President, Arnold W. Lempka, M.D.



Doctor Harlan L. Papenfuss presenting President-Elect badge to Doctor Houtz G. Steenburg.



AMA President, Richard E. Palmer, M.D., addressing House of Delegates.



Mrs. Gordon D. Francis addressing House of Delegates.



Doctor Arnold W. Lempka presenting fifty-year certificate to Robert E. Harry, M.D.



Doctor Arnold W. Lempka presenting fifty-year certificate to Howard B. Hunt, M.D.



Doctor Arnold W. Lempka presenting fifty-year certificate to Robert W. Taylor, M.D.



AMA President, Doctor Richard E. Palmer, delivering first Frank H. Tanner Memorial Lecture.



Harlan L. Papenfuss, M.D.; Minnesota State Medical Association President, Richard Anonsen, M.D.; Warren G. Bosley, M.D. and C. Lee Retelsdorf, M.D.



Doctor C. Lee Retelsdorf, President of the Greater Omaha Medical Society, presiding at Annual Distinguished Luncheon.



Doctor Harlan L. Papenfuss reading scroll of appreciation for establishment of Frank H. Tanner Memorial Lecture.



Doctor Harlan L. Papenfuss presenting scroll to Mrs. Frank H. Tanner.



Doctor Arnold W. Lempka presenting Past President's plaque to Doctor Harlan L. Papenfuss.



Doctor Arnold W. Lempka presenting Past President's badge to Doctor Harlan L. Papenfuss.



Doctor Harlan L. Papenfuss presenting special plaque to Doctor Arnold W. Lempka.



Doctor Harlan L. Papenfuss presenting President's badge to Doctor Arnold W. Lempka.



Exhibit area.



Exhibit area.

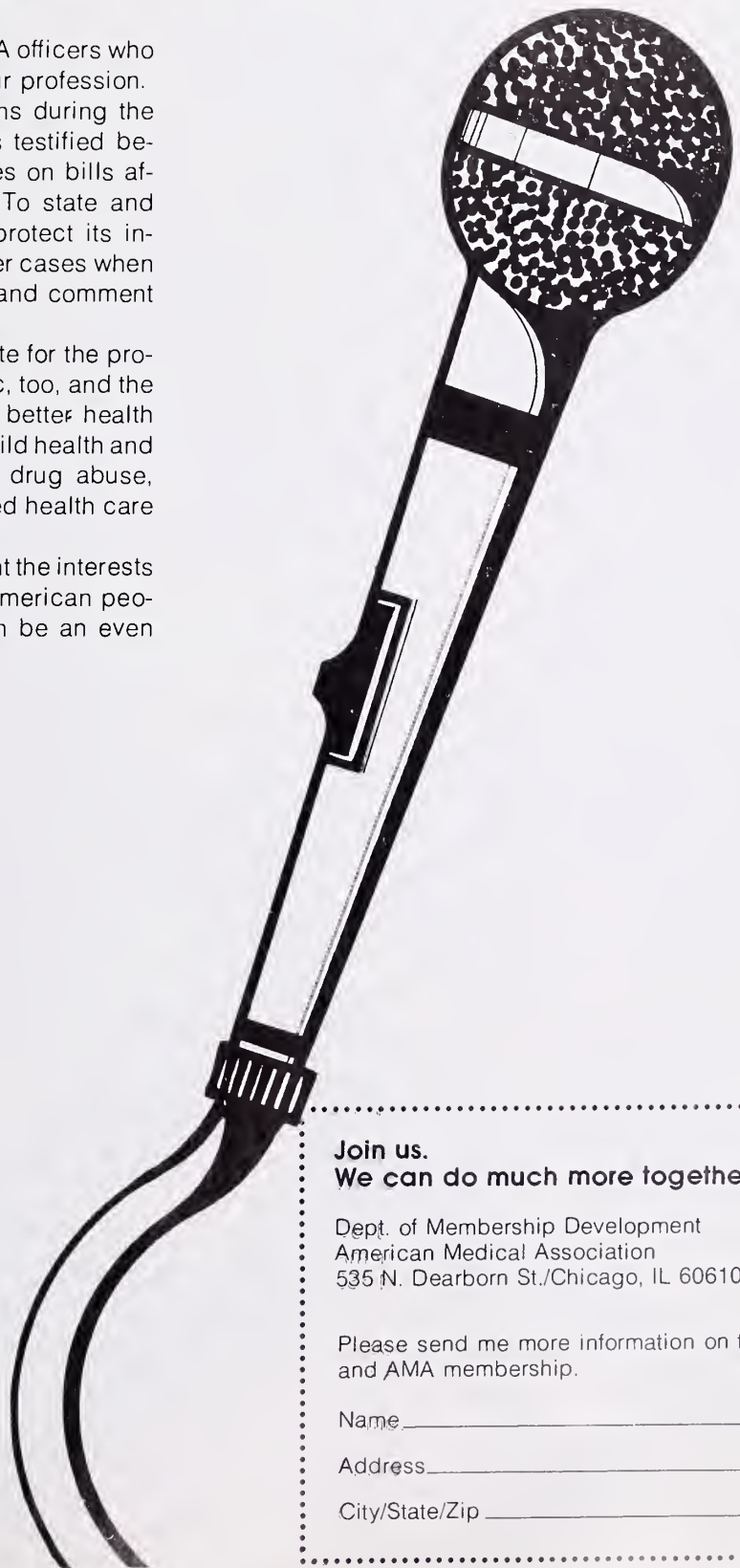
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These were but a few of the many AMA officers who have gone to the Hill to represent our profession.

On more than two dozen occasions during the 94th Congress, AMA representatives testified before Congressional health committees on bills affecting the delivery of health care. To state and explain our profession's views. To protect its interests. In addition, there were 72 other cases when the AMA submitted written analysis and comment on legislation.

But the AMA isn't solely an advocate for the profession. It's an advocate for the public, too, and the passage of legislation for more and better health care. Legislation such as maternal, child health and crippled children services. Alcohol, drug abuse, and mental health programs. Improved health care for American Indians.

The AMA goes to the Hill to represent the interests of the American physician and the American people. With your support, the AMA can be an even more effective spokesman.



**Join us.
We can do much more together.**

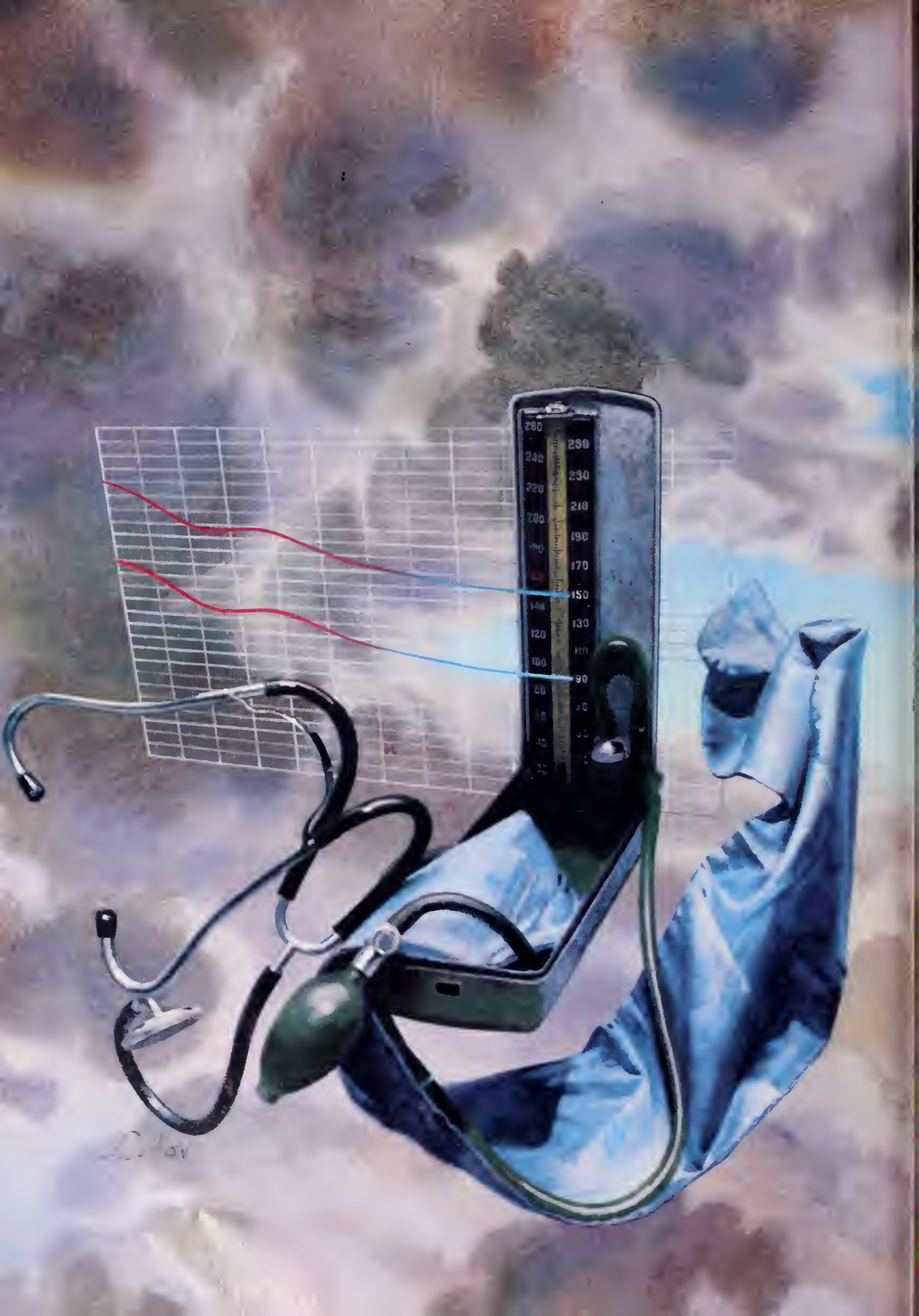
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Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease. **Contraindications:** Anuria, hepatic coma or precoma; allergy or sensitivity to Zaroxolyn. Or, as a routine in otherwise healthy pregnant women. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is particularly hazardous in digitalized patients; dangerous or fatal arrhythmias may occur. Hypotension and hyperuricemia may be noted or precipitated. Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced. Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing

age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur in edematous patients in hot weather. **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth,

hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg. Dosage adjustment may be necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg.

References:

1. Dornfeld L, Kane R. Metolazone in essential hypertension. The long-term clinical efficacy of a new diuretic. *Curr Ther Res* 18: 527-533, 1975
2. Data on file, Medical Department, Pennwalt Prescription Products.



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The problem: how to divert the patient from this tragic encounter.

As medical guide, family counselor, trusted friend—you, *doctor*, play a major role in the fight against cancer quackery.

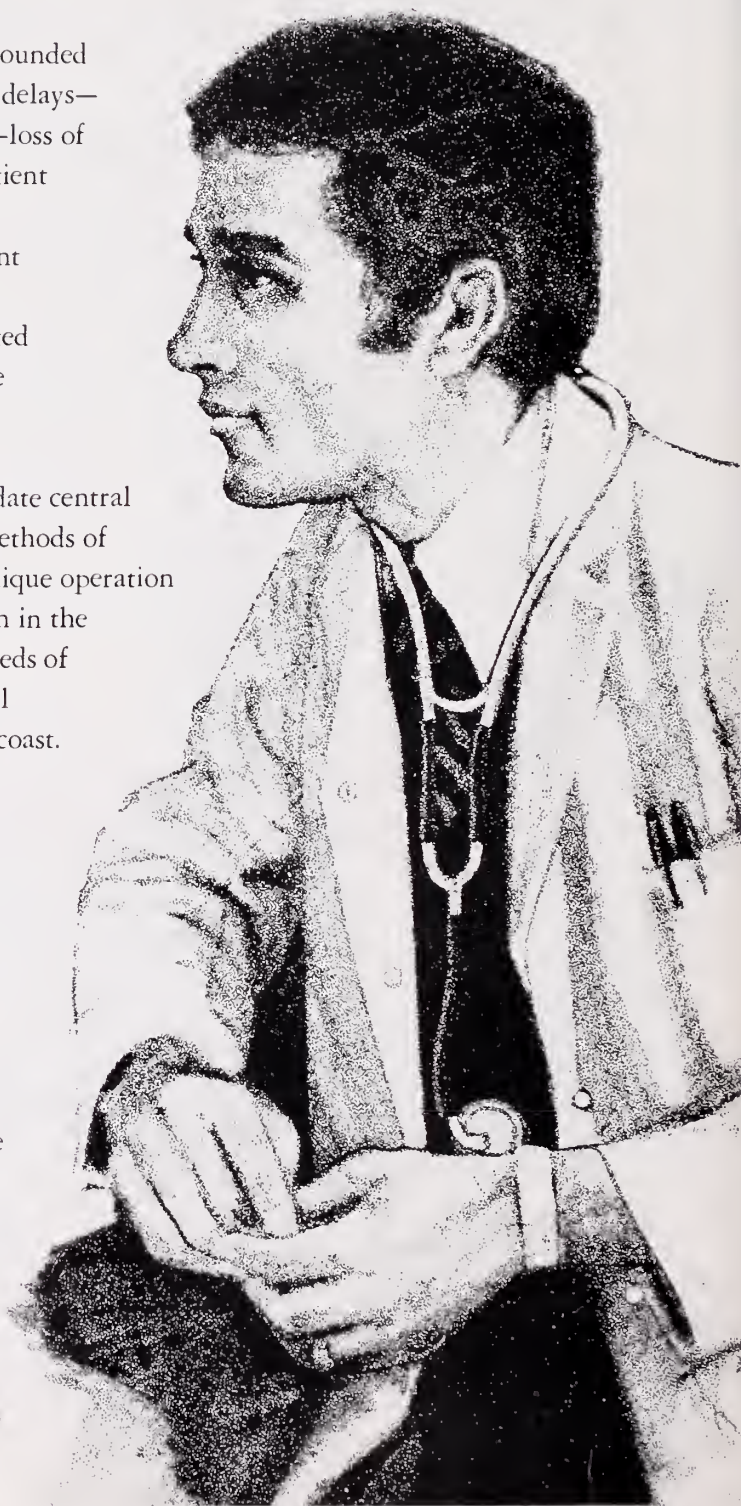
We are here to serve as your partner.

Our National Office maintains an up-to-date central clearinghouse for materials on unproven methods of cancer diagnosis and treatment. This is a unique operation and the principal source of such information in the country. Its services are widely used. Hundreds of inquiries are received and answered from all segments of the community, from coast to coast.

To trigger grass-roots action, we have formulated a model State Cancer Remedy Act designed to control the promotion and sale of unproven methods of cancer management. This has helped to inspire some 20 states to enact or consider legislation against cancer quackery—with active support from the medical community. Copies of the model act, as well as copies of laws in effect, are available through our National and Division offices.

In these actions against cancer quackery, as in all our efforts against cancer, ours is a lifesaving partnership.

American Cancer Society 



The Letter Box

Dear Frank,

Congratulations on the Sandoz Medical Journalism award!

Also I was pleased to see your editorial in a recent JAMA.

Robert L. Grissom, M.D.

Dear Dr. Cole:

Congratulations on the honor your Journal recently received.

Very truly,
Lucille Rosenberg, Librarian
Lincoln General Hospital
Lincoln, Nebraska

Dear Dr. Cole:

Congratulations! I just read about the honor you received on the editorials which appear in the *Nebraska Medical Journal* and wanted to add my hurrahs. I've always felt your editorials were winners, and am extremely pleased that others do too.

Cordially,
Pat Pike
Editor, NORDEN NEWS

Dear Dr. Cole:

Congratulations on your winning one of the Sandoz Medical Journalism Awards. If anyone deserves it, you do. Yours is the best reading of any of the State Journals.

Congratulations again.

Sincerely yours,
James F. McCarthy
Managing Editor
Resident & Staff Physician
80 Shore Road
Port Washington, N.Y. 11050

Dear Frank:

Just a note to let you know I appreciate reading your editorials and comments every month. However, you might note that Dr. John Snow took the handle off the Broad Street pump to stop a *cholera* epidemic. The typhoid epidemic was stopped by William Budd. What would life be without the nit-pickers?

Sincerely,
John C. Goldner, M.D.

Between Cases

A Little Table [1].

Expectation of life (in years) at birth, in the United States

	Male child	Female child	All
Born 1960			69.9
Born 1970	67.0	74.6	70.7
Born 1976	68.9	76.7	72.8

The Workup.

P.E. Abdomen silent and grossly distended and hard.

Imp. G.I. disorder with abdominal distension.

Section On Progress Notes.

When the patient dies, why are the notes called progress notes? And since everybody dies, why do we say progress notes at all?

Department Of Needless Words.

Cool to touch.

Few in number.

Soft to touch.

Large in size.

Red in color.

Postgraduate Gems.

Bleeding always stops.

Did They Mean It?

The medical and psychosocial problems of alcoholism are staggering.

Krupp & Chatton: CMD&T (1977):624.

Quote Unquote.

Pain is the outcome of sin.

Buddha

From The Q & A Columns.

Your question is difficult to answer.

Words I Can Do Without.

In and of itself, disincentives, importantly, interim, probabilistic.

On Causes.

Seizure, etiology undetermined, probably idiopathic.

Section On Nephrology.

The left kidney is probably absolutely small.

—F.C.

Welcome New Members

S. Patrick Adley, M.D.
3003 Paddock Road
Omaha, Nebraska 68124

Peter C. Chilian, M.D.
Methodist Hospital
Omaha, Nebraska 68114

James A. Davis, Jr., M.D.
Nebraska Psychiatric Institute
Omaha, Nebraska 68106

Monroe D. Dowling, M.D.
120 Wedgewood Drive
Lincoln, Nebraska 68510

Charles Henkel, M.D.
900 Norfolk Avenue
Norfolk, Nebraska 68701

William B. Mitchell, M.D.
615 Anderson Building
Lincoln, Nebraska 68508

James G. Morgan, M.D.
7328 Maple Street
Omaha, Nebraska 68134

Un Kyo Shin, M.D.
Red Cloud, Nebraska 68970

Rowen K. Zetterman, M.D.
301 Doctors Building
Omaha, Nebraska 68131

Reinstated Member

James H. Maynard, M.D.
1909 North 81st
Omaha, Nebraska 68114

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —

- August 13 — Scottsbluff — St. Mary's Hospital
- August 27 — McCook — Elks Lodge
- October 8 — Ainsworth — Elementary Grade School
- October 29 — Alliance — Central School Building

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

37TH ANNUAL AMA CONGRESS ON OCCUPATIONAL HEALTH — September 19-20, 1977, at Stouffer's Riverfront Towers in St. Louis, Missouri; cosponsored by the National Institute for Occupational Safety and Health, is open to all health professionals and is of particular interest and help to part-time occupational physicians. Concurrent sessions will cover health programs for special employee groups, work stress and job performance, the vital role of the occupational health nurse, toxic substances in industry, emergency medical/disaster planning, and many

other topics. Registration fee for the Congress is \$40.00. The Congress provides 12 hours Category I credit toward AMA Physician's Recognition Award. Write to: Department of Environmental, Public, and Occupational Health, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

COLONOSCOPY TRAINING PROGRAM —

The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 29 & 30, October 1, 1977, Lincoln Hilton Hotel, Lincoln, Nebraska.

45TH ANNUAL POSTGRADUATE ASSEMBLY, Omaha Mid-West Clinical Society; Omaha Hilton Hotel; October 31, November 1 and 2, 1977. For information contact: Janet S. Noll, Executive Secretary, Omaha Mid-West Clinical Society, 540 Medical Arts Building — 402-345/7146, Omaha, Nebraska 68102.

AMERICAN MEDICAL ASSOCIATION — Interim Session, House of Delegates, December 4-7, 1977, Palmer House, Chicago, Illinois.

NEBRASKA OBSTETRIC GYNECOLOGIC SOCIETY (NOGS) — Annual Scientific

Session: Frontier Hotel, Las Vegas, Nevada; December 8-11, 1977. Write to: Dr. Dennis Beavers, Secretary-Treasurer, 8552 Cass Street, Omaha, Nebraska 68114.

AMERICAN MEDICAL ASSOCIATION — Winter Scientific Program, December 10-13, 1977, Miami, Florida.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — April 30 - May 3, 1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 17-22, 1978, St. Louis, Missouri.

Books



Evaluation and Explanation in the biomedical sciences; Philosophy and medicine, volume 1; edited by H. Tristram Engelhardt, Jr. and Stuart F. Spicker; 240 pages; published 1975 by D. Reidel Publishing Company, Dordrecht/Holland, Boston/USA; \$28.00 hardcover.

This is the first volume of a series devoted to the examination of philosophical issues in medicine. The book is divided into five sections and further into 13 essays by 15 authors, four of whom are MDs. These discussions are the proceedings of the first trans-disciplinary symposium on philosophy and medicine, held at Galveston, May 9-11, 1974.

The lectures and round-table discussions ask what is health, what is disease, and what is the meaning of each? What more is there to medicine than biology, what is the place of philosophy in medicine? There are *homo philosophicus* and *homo medicus*; and the treatment of disease requires consideration of social and historical aspects, as well as somatic.

—F.C.

Philosophical dimensions of the neuro-medical sciences; Philosophy and medicine, volume 2; edited by Stuart F. Spicker and H. Tristram Engelhardt, Jr.; 274

pages; published 1976 by D. Reidel Publishing Company, Dordrecht/Holland, Boston/USA; \$29.00 hardcover.

This volume consists of the proceedings of the second trans-disciplinary symposium on philosophy and medicine, held at the University of Connecticut May 15-17, 1975. The text is divided into five sections and into 14 essays written by 17 contributors, five of whom are physicians; there is a round-table discussion.

We are obligated to philosophize, this book suggests. What is pain, what is suffering, are behavioral disorders diseases? Philosophy in the neuromedical sciences is our theme, and while there is a great deal to be read here, it appears that we should read it. I have never believed that we should any of us be bread-and-butter doctors. We covet, and our patients want us to have, depth and culture, and a good deal of thinking about what they are feeling and what we are doing. Shall we bind wounds and remove pain with only the reflex thinking needed for bandaging and painkilling; must we not do much more throughout the day and especially during the long years of our practice?

This is what this book is about. Read it.

—F.C.

WashingtonNotes

The Talmadge bill.

Determined to curb rising hospital costs, the Congress has opened hearings on legislation proposed by Sen. Herman Talmadge (D-Ga.) that would institute a prospective reimbursement plan for the nation's hospitals. The Talmadge bill is considered a rival of the Administration's proposal to place a nine percent "cap" on hospital revenues.

Most health provider groups, including the A.M.A., found the Talmadge plan much more palatable than the Administration's bill, though they took issue with some of the Talmadge provisions.

Raymond T. Holden, M.D., Chairman of the AMA Board of Trustees, told the Subcommittee "we commend the sponsors of this legislation for its broad coverage of a variety of issues in the Medicare and Medicaid programs." While there are some provisions the AMA does not support, "there are many others which we believe would be beneficial and for which we urge your favorable consideration," Dr. Holden testified.

The AMA witness termed "beneficial" another provision encouraging the voluntary elimination of underutilized beds and the closing of facilities or parts thereof.

Also criticized was the proposed Talmadge criteria for determining Medicare reasonable charges for physicians' services which would allow the government to determine statewide prevailing charge levels for each state, based on 50 percent of the charges made for similar services in the state. Prevailing charge levels in a locality would continue to be subject to an economic index, but any increase in the prevailing charge level could not exceed the statewide prevailing charge by more than one third.

The Talmadge plan would cost up to \$50 million more next fiscal year, in contrast with the estimated national savings of \$1.9 billion for the Administration's Hospital Cost Containment Act, according to the Cabinet Officer.

Fees.

Physician fees eventually may need cost controls, HEW Secretary Califano has told Congress.

"Eventually the health care system will have to deal with physician fees," the Secretary told the Senate Finance Subcommittee on Health.

Califano said he and President Carter considered controls on physician fees as well as hospitals earlier this year but rejected them "because we just don't know yet how to deal with that problem."

M-M fraud & abuse (1).

The Medicare-Medicaid anti-fraud and abuse legislation is winding through a complicated pathway in two powerful house committees — Ways and Means and Commerce. Both committees have jurisdiction over the bill before it reaches the floor.

The Ways and Means Committee is ready to report a bill and the full Commerce Committee is preparing to act also.

The Senate will not take up the measure until the House completes its work on the bill.

Fraud & abuse (2).

HEW Secretary Califano has charged that fraud and abuse by physicians and pharmacists in the Medicaid program is a serious problem.

Califano said that through computers programmed to flag suspicious cases in state Medicaid files, 172 cases have been identified involving "what appear to be the worst physician and pharmacist offenders against the Medicaid system." He did not release any names.

The 172 cases warrant further investigation and may lead to prosecution, according to the Secretary. They are spread over 45 states and the District of Columbia. Ninety-

two cases involve physicians, and 80 deal with pharmacists.

Physicians and pharmacies receive about 16 percent of Medicaid expenditures (which total \$18 billion this year, including a \$7.8 billion state share). Estimates of fraud and abuse in Medicaid are estimated at between \$800 and \$900 million annually, said Califano.

Health insurance.

Renewed prospects of Administration activity next year on national health insurance has spurred Congressional interest in the issue. At last count 22 lawmakers from both parties have co-sponsored the AMA comprehensive health insurance plan for all, bringing to 30 the number of Senators and Representatives who have backed the proposal officially.

Early next year, the Carter Administration will submit its own NHI plan. President Carter and HEW Secretary Califano have said they will make a determined effort to secure Congressional enactment.

The AMA proposal is designed to insure that all Americans receive private health insurance and financial protection against catastrophic illness. Federal contribution to premium cost would be geared to income. Federal intervention is kept to a minimum. Standards of benefits would have to be met by all insurance plans.

The FTC & us.

"The Federal Trade Commission is not a health or medical agency," FTC Chairman Michael Pertschuk has told a conference on competition in health care.

The business of the FTC is business, and we recognize, along with most Americans, that the delivery of health care is business, an industry of vast proportions and vital effects. Health care has become our business."

Mr. Pertschuk opened a two day conference, sponsored by the FTC which rarely holds such events, with a reference to the AMA.

"The FTC is now in the process of receiving documents subpoenaed from the AMA, and certain state and local medical societies. Our intention is to learn how self-regulation — professional control over voluntary and state agencies — really works. There is reasonable doubt that the medical profession, by itself or through friendly state governments is completely open to innovation, competition, quality control, or consumer choice."

New general.

Julius Richmond, M.D., the newly appointed Assistant Secretary for Health at the HEW Department, also will bear the title — long considered moribund — of U.S. Surgeon General.

Endometrial Abnormalities Occurring in Young Women on Long-Term Sequential Oral Contraception — F. A. Lyon (127 S Tenth St, Minneapolis, MN 55403) and M. J. FRISCH *Obstet Gynecol* 47:639-643 (June) 1976.

Recently, the occurrence of adenocarcinoma of the endometrium has been reported in young women exposed to sequential oral contraceptive agents for long periods of time. In this study, 12 young women who had been using a sequential contraceptive for periods from 13 to 93 months were subjected to office endometrial aspirations. Tissue specimens showed endometrium that varied in diagnosis from proliferative endometrium to severe atypical adenomatous endometrial hyperplasia bordering on endometrial carcinoma in situ.

* * *

There is no evil in the world without a remedy.

Sannazaro.

Treatment of Duodenal Ulcer With Cimetidine — S. J. Haggie et al (*J. H. Wyllie, Univ College Hosp Medical School, London*) *Lancet* 1:983-984 (May 8) 1976.

Nineteen patients with active duodenal ulceration shown by fiberoptic endoscopy were treated with a six-week course on cimetidine, 1.6 gm daily. Seventeen had healed ulcers on repeat endoscopy at six weeks. Seven of these have relapsed symptomatically within a month of withdrawal of cimetidine. No statistically significant change in the hemoglobin value, white blood cell count, urea and electrolyte concentrations, or liver function tests was associated with treatment. Plasma creatinine levels showed a small but significant rise but the mean level remained within the normal range.

* * *

Mistake, error, is the discipline through which we advance.

Channing.



"Aren't you the fellow who checked my Form 1040 last year?"

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PHYSICIAN'S OFFICE AVAILABLE in western Nebraska community of 8,000. Physician is retiring in July. Contact Box #60, NEBRASKA MEDICAL JOURNAL, 1902 First National Bank Building, Lincoln, Nebraska 68508.

EMERGENCY MEDICINE: physician for major suburban hospital. One of five full-time M.D.s. New department. Hospital-based specialists in neonatology, pulmonary disease, pathology, cardiology, radiology and anesthesia. Full partnership after two years. Tax-sheltered annuity available and retirement provided. Existing four M.D.s average age is 34. Joseph R. McCaslin, M.D., Director of Emergency Medicine, Archbishop Bergan Mercy Hospital, Omaha, NE. 68124 (402) 398-6031.

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Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under 6. Though generally not recommended, if combination therapy with other psycho-

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tropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relation-

ship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. **Oral—Adults:** Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* **Geriatric patients:** 5 mg *bid* to *q.i.d.* (See Precautions.)

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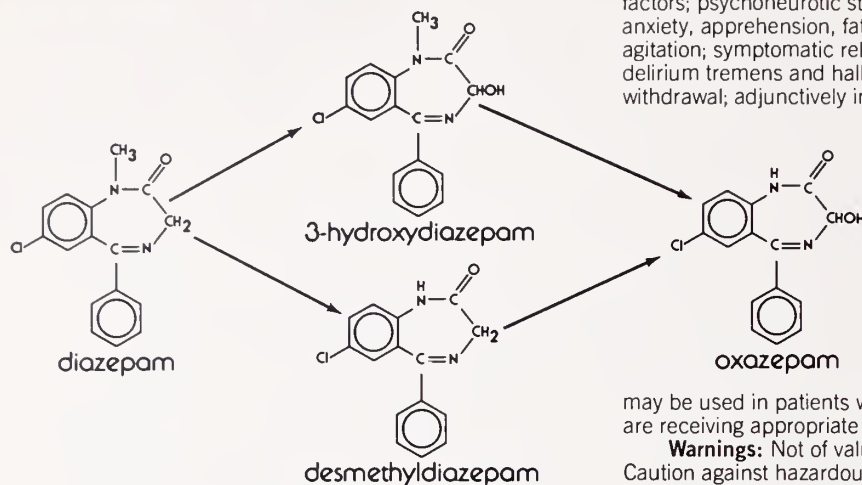
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September, 1977

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to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated:

Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma;

may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients.

Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
3901 So. 27th St., Lincoln 68502

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Manuscripts to be presented for publication in the JOURNAL should be typewritten, double-spaced, on one side only of firm (not onion skin or flimsy), standard letter size (8½ by 11 in.) white paper. Wide margins (at least 1¼ in. on left) should be left free of typing. On the first or title-page should be shown the title of the article, the name (or names) of the author, his degree and other significant credits. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Illustrations should be numbered and their locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be black (India ink) on pure white. Photographs should be on glossy paper and a minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

Manuscripts (original, not a carbon) should be sent directly to the Editor at the Journal's address.

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Clinical Features of Submassive and Massive Pulmonary Emboli — W. R. Bell et al (Johns Hopkins Univ School of Medicine and Hosp, Baltimore, MD 21205) *Am J. Med* 62:355-360 (March) 1977.

The clinical signs and symptoms of 327 patients with pulmonary emboli established by angiography were analyzed in a large antemortem study. The distinguishing feature of this series is that the diagnosis was clearly established by angiography in each patient. The findings in this series of patients support the clinical impression that no single symptom or combination of symptoms are diagnostic of pulmonary embolism. Chest pain was the most common complaint. In this series of patients with proved pulmonary emboli, Allen's sign was observed in only 23%. Hemoptysis, said to be one of the true hallmarks of the disorder, occurred in less than 30% of the patients. The most common abnormality encountered on examination was a respiratory rate of greater than 16/min. Immobilization for a variety of reasons was the most common coexisting condition observed in these patients. Although there was not a striking difference in symptoms between patients with massive vs submassive emboli, the patients with massive emboli were more likely to be more symptomatic. Seventy-five percent of women under age 45 years in this study were taking oral contraceptives. Size of the embolus was not related to mortality.

Water Intoxication Due to Carbamazepine — W. P. Stephens et al (M. L. E. Espir, General Hosp, Nottingham, England) *Br Med J* 1:754 (March 19) 1977.

Water intoxication during treatment with carbamazepine is described in one patient with trigeminal neuralgia and in another with epilepsy. This is attributed to the antidiuretic effect of carbamazepine. Special care should be exercised when carbamazepine is given to elderly patients and those with cardiovascular disease. If the serum carbamazepine level is high or if symptoms consistent with water intoxication occur, the plasma sodium level and osmolality should be checked. Hyponatremia then is an indication to reduce or stop the carbamazepine therapy.



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Clinical Significance of Retroperitoneal Fibrosis — G. D. Zuidema (Dept of Surgery, Johns Hopkins Hosp, 601 N Broadway, Baltimore, MD 21205) *Surgery* 81:250-257 (March) 1977.

A total of 481 cases of retroperitoneal fibrosis (RPF) presented in the literature were reviewed and ten new cases were added. One etiological factor, methysergide, was implicated in 12.4% of cases, but the majority remain unexplained. Methysergide should be discontinued if implicated. Laparotomy for ureteral compression characteristically will reveal a dense, rubbery plaque in the retroperitoneum. Generous frozen section biopsy specimens show fibrosis, usually with some chronic inflammation and suggestive of RPF. Careful inspection of retroperitoneal nodes and liver may reveal the presence of malignancy in 7.9% of patients. In the absence of malignancy, the ureters should lyse fairly freely and peristalsis may return. If malignancy is not present on permanent sections of biopsy material, the patient can be given a fairly optimistic prognosis (cumulative mortality 9%). Suboptimal improvement probably is an indication for steroid therapy and surgical reexploration may be indicated. In these patients further search for malignancy should be undertaken.



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Prognosis of New and Worsening Angina Pectoris — B. Duncan et al (Royal In- firmmary, Edinburgh) Br Med J 1:981-984 (April 24) 1976.

A study of the natural history of new and worsening angina pectoris in 251 men under the age of 70 showed that heart attacks developed in only 15.5% and that most of these occurred within six weeks of the onset of angina. A discriminant function analysis did not provide a predictive index to allow accurate prior identification of patients liable to develop heart attacks. Six months later, 38% of the patients either had no pain or infrequent attacks of angina, and 81% had returned to full-time work. The syndrome of new and worsening angina has a low risk of early death. Many patients are symptom-free six months later. In general, emergency coronary arteriography and surgery are not indicated.

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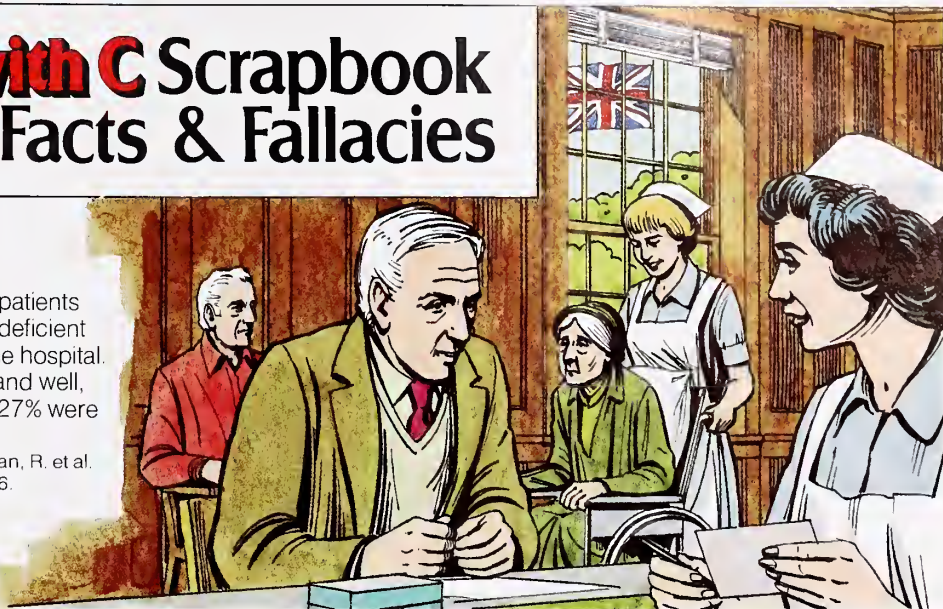
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Griffiths, L.L., Brocklehurst, J.C., MacLean, R. et al.
Diet in Old Age, Brit. Med. J., 1:739, 1966.



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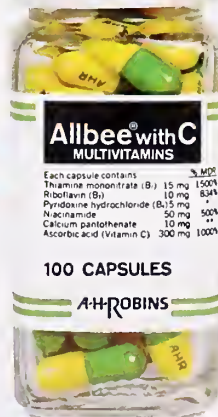
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Effect of Aspirin on Intestinal Absorption of Glucose, Sodium, and Water in Man — C. Arvanitakis et al (Dept of Medicine, Kansas Univ Medical Center, Kansas City, KS 66103) Gut 18:187-190 (March) 1977.

The effect of aspirin on small intestinal function in six healthy volunteers was examined using a segmental perfusion technique, with a test solution of 40 mM D-glucose, 140 mM NaCl, and 0.5% polyethylene glycol. Oral administration of 2.6 g aspirin inhibited by 50% jejunal glucose, sodium, and water absorption rates. Adenosine triphosphate (ATP) concentration was analyzed in jejunal mucosal biopsies before and after aspirin. There was an almost 50% decrease in mucosal ATP levels after aspirin. This effect may be mediated through cellular injury and impairment of mitochondrial energy metabolism. Aspirin may significantly alter small intestinal function. It appears possible that the inhibitory effect of aspirin on glucose absorption may account, at least in part, for the lower blood glucose levels observed with the use of the drug.

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— L. H. Burr (Dept of Surgery, Univ of British Columbia, Vancouver, British Columbia, Canada) J. Thorac Cardiovasc Surg 73:421-423 (March) 1977.

A long-life cardiac pulse generator powered by the lithium iodide fuel cell is described and experience with 250 implantations is documented. The compact, hermetically sealed pulse generator unit is easily implanted, is reliable, and is well accepted by patients. There have been no pacemaker-related deaths and only minimal morbidity. There was a single instance of electrical circuit failure of the pulse generator early in the study; however, to date, after 15.9 months' average follow-up representing 3,988 patient-months of cardiac pacing, there have been no battery failures and no further electrical component failures. The pulse generator unit is now guaranteed by the manufacturer for six years. The lithium iodide-powered pacemaker represents a significant advance in pacemaker generator technology and is recommended for long-term cardiac pacing.

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**Treatment of Steroid-Dependent Asthma
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P. Chervinsky (Allergy Associates, Inc,
New Bedford, MA 02740) Ann Allergy 38:
192-197 (March) 1977.

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THE NEBRASKA MEDICAL JOURNAL

WE WILL NEVER GET THERE

At the extremes of the physical world we cut up molecules and we look out into space, and in the biological universe we invent powerful microscopes and discover tiny parts of living things and chemical go-betweens that make things happen.

But there is no end to our looking and to our finding. There is always more to be seen. We were unaware of galaxies only a little while ago, now they are everywhere. We knew nothing of quasars, and they are wherever we look. The molecule was simple, and is now seen to consist of other little things, and these are divided into even littler ones.

We looked at the body once and said it seems thus and so and that is the trouble, and it satisfied us. Then we spoke learnedly of chemicals and thought we knew. We looked through better microscopes and saw things we had not seen before, and we came to believe we know what makes things happen.

But as you pursue a light-signal, it forever gets away from you, and the faster you go, the more easily it escapes. And as we dissect atoms and improve telescopes, we find pulsars and red shifts; and when we pore over synapses and arterioles, we discover new spaces filled with newer structures, and the end is never in sight.

There can be no end. Some things are unknowable, and maybe everything is unknowable. We have stopped saying, *now we know*, for it was untrue a hundred years ago, and it is not true now.

Shall we stop? No, we cannot, we will go on with our looking and probing. We will climb the mountains and sail the unknown seas. We will build better telescopes and microscopes and laboratories. We prolong lives and we put an end to pain. But we enrich lives, too, for there is no end to our curiosity, and we will always wonder about the world we live in. We get no closer to the truth, there are more mountains to climb and newer seas to sail. There are bigger and smaller things to see, and more substances

that help us live. And if we forever lose the chase, what of it? We cannot stop; we will never get there, but we cannot stop. Are we the animal on the treadmill, going nowhere? No, we are better than that. We know what we are doing, we know the game is hopeless, we know we cannot win, but we know the way, and the name of our struggle may be humanity, or even curiosity, but I think it is hope.

—F.C.

THE PHYSICAL EXAMINATION

When the government or the law or a private organization sends someone for a physical examination, the patient may not be hurting, and the examining doctor will probably never see the patient again. But has a doctor-patient relationship not been established? And what has happened to privacy and confidentiality? For is it not the custom for the physician to report to the organization that requested the examination? And this reporting to a third entity is something that is not done when the patient comes alone. It is done when a referring doctor sends the patient, but that is not the same thing.

Suppose the patient is sent for an orthopedic examination, and the examining doctor finds leukoplakia or a cataract. In the extent that a patient-doctor relationship exists, is it the examiner's duty to point this out to the patient, or is the doctor merely to complete his examination of bones and joints?

Is the examination for compensation purposes different from what we might call the private-patient-examination?

—F.C.

HOW TO TELL HOW OLD A PATIENT IS

Sometimes I read, *He was 68 years of age*. That is an awkward construction; it grates on the ear, it sounds like poor English, and you can't be 68 years of anything else.

He was 70 years old is better. But I have a best.

He was 68.

—F.C.

ON SLEEPING

I do not know what sleep does for you, but it must do something good, because we all do it. It is like eating; every now and then you find you must do it, and you feel the better for having dined or slept. It is an odd, sought-for loss of consciousness, but it is pleasant and restorative. And we spend a full third of our lives asleep. We get in bed, and then comes strangeness. For some wiggle, some lie on the right side (I do), and others can sleep only on the left side or on the back. I have known some who said they could never sleep on the back. Some sleep prone, some twist and turn, some snore. Some dream. One will straighten knees and hips, with arms at the side; another will curl up like a fetus.

There are a very few who have pointed the head of the bed toward the north pole and could not sleep any other way. Some dress for the occasion, some don't. Some (with hiatal hernia) elevate the head of the bed; others, using traction, raise the foot. Some use two pillows, as Mr. Minnick, and in orthopnea. Some may face the morning sun, others have used a vibrating bed, and there are hard and soft mattresses and boards under the mattress, and water beds and air beds. Some sleep with big pillows, some with none.

Some want only four hours of sleep, some need eight, I think Edison got by with two or three, I do with seven, and we may sleep less as we become older. And there is insomnia, from which I do not suffer. Some need sleeping pills, or at least a nightcap on retiring. One or two have even had the house turned so that the bed always faces the sun. I sleep well in any position; I wonder how it would be if I raised the left side of the bed, and then maybe put the foot down. Good night.

—F.C.

ON WE

An essay on *we* sounds like boredom. I never liked to see the word *I* in a scientific article, and I wrote *we* in my first outpourings, but I say *I* now. It shows I have an open mind. The use of the plural personal pronoun *we* is given over only to editors, popes, royalty, hermaphrodites, schizophrenics, and to people who have worms. I have given up my right to use it as an editor, and I do not belong to any of the other groups.

When you say *you*, you may be addressing a friend, a king, or a crowd, but when you say *me* or *us*, you distinguish. And to say *we* for yourself, you must be distinguished. I did not give it up because I was not distinguished, nor because of my modesty; it was so you would know exactly who was talking. *I*, that's *who*.

—F.C.

Carcinoma of the Thyroid — A 25 Year Experience

Abstract

Surgical management of most types of carcinoma of the thyroid is quite successful. The 25 year experience of one private community based office was reviewed. All specimens were reviewed to assure current histopathologic classification prior to evaluation of age and sex distribution and prognosis.

OPERATIONS involving the thyroid gland date back centuries but they continue to provoke controversy. Management of carcinoma of the thyroid has been debated at length. This article will not attempt a resolution of the questions of appropriate diagnosis and management of carcinoma of the thyroid. Rather, it is a review of the experience of one private, community based office over a period of 25 years.

From 1949 through 1974 786 patients were operated upon for thyroid disorders. Nearly all of these presented with palpable nodules with or without adenopathy. Laboratory and nuclear medicine evaluations were obtained preoperatively as clinically indicated. Of this series, 47 received a histopathologic diagnosis of carcinoma at the time of their original management. This represents an incidence in our series of six percent. Of these, one was deleted from the series because her initial procedure was performed elsewhere.

In reviewing this series of patients, pathology slides were retrieved from three community hospitals and were reviewed to assure current classification. At this reevaluation, five patients were felt to have had benign disease and they were eliminated from the series. The remaining 41 patients are evaluated in this paper.

The prevalence of cancer of the thyroid is difficult to determine. It is readily accepted that autopsy incidence is much higher than clinical incidence. This is assumedly because

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carcinoma of the thyroid is frequently not diagnosed during life and is not commonly a cause of death. U.S. Public Health Service statistics show a new case incidence of 25 per one million population with annual mortality rates of five per million men and eight per million women. In large autopsy series, nodular goiter can be seen in 50 percent of all patients.¹ The incidence of carcinoma in nodular thyroids has been reported from 5 percent to 25 percent.^{1,2} These figures undoubtedly reflect case selection, referral patterns, geographic and racial differences and variation in pathology departments. In any case, these figures imply that carcinoma of the thyroid is not an uncommon disease.

Thyroid carcinoma is more common in women, with ratios of 2:1 to 8:3 reported.^{1,3,4} In our series the overall predominance of women was 29:12 with a striking predominance in some histopathologic classifications.

When reclassification for this article was complete, our series had representatives of nine histopathologic classifications. (Table I) In all there was a female predominance of 29 to 12. Average age at the time of diagnosis was 55.4.

Papillary carcinoma (Table II) represented the largest single group in our series, with four men and five women being operated upon from 3 to 21 years ago. The age range at the time of diagnosis was from 17 to 60

years with an average of 41.2. Operations were tailored to each case with total lobectomy and contralateral subtotal lobectomy being the most common initial operation when the diagnosis was established. More extensive operations were, of course, performed when there was nodal involvement and several patients had subsequent operations for recurrences. One of these, a 20 year survivor has had four operations for recurrent disease including a radical neck dissection ten years ago and a node removed two years ago. Eight of these patients are currently alive and well and felt to be free of disease. The ninth survived five years and died of a second primary. None had skin recurrences which were felt to represent seeding at previous operations. There has been no evidence of distant metastases.

Pure follicular carcinoma (Table III) was seen in five cases with a 3:2 female to male ratio. The average age was 57 with an age range of 38 to 70. This group held the only patient on which long term followup was not available. Three of these patients are alive and well and free of disease at 9, 14, and 16 years. The last patient was thought to be free of disease at his death eight years postoperatively of a myocardial infarction. No recurrences or metastases were noted in this group.

Mixed papillary and follicular tumors (Table IV) were considered a separate group on reclassification and this probably accounts for the papillary group being smaller than would be anticipated based on other large studies. We had eight patients in this group and, interestingly, seven were females. The age range was 28 to 63. The lone male was the 63 year old and he was the only member of the group to die of his disease, surviving seven years. Other survivors currently alive and free of disease range from 2 to 17 years postoperatively. One patient in this group had seven operations over a three year period including bilateral radical neck dissection for local nodal recurrences. She has now been free of recurrence for six years. Another had her diagnosis made by lymph node biopsy and her thyroid removed secondarily. The man who died of his disease had several operations at another institution for local nodal recurrences.

Anaplastic carcinoma (Table V) of the thyroid is an uncommon but especially vicious disease. We had a disproportionately high number in our series with nine patients. The average age was 71.2 with a 5:4 female predominance. The average survival was three months with no patient surviving more than eight months. Interestingly, one of these tumors was originally classified as a papillary tumor and on re-examination for this study, it was found to have a small focus of anaplastic carcinoma. This is the type of lesion which has led some authors to suggest degeneration of papillary carcinoma to more aggressive forms.⁵

Lymphomas (Table VI) can arise primarily or secondarily in the thyroid. We had four patients with malignant lymphomas, all female, with an average age of 65.2. One had well documented lymphoma prior to her thyroidectomy. She died 18 months after her operation of her disseminated disease. Another patient died of a cardiac arrest three days postoperatively and constituted the only operative death in the series. Two patients are alive and well at three and four years, respectively, following radiation therapy.

Three patients, all female, had occult sclerosing carcinomas (Table VII). Their ages were 26, 29, and 51 and all are currently free of disease after 15, 9, and 9 years respectively. There was a single patient with Hurthle cell carcinoma and she survived ten years and four additional operations for recurrence before her death at age 70. Cause of death was not documented. There was one patient with medullary carcinoma who survived 18 months and died at age 82 of an unrelated disease. One tumor was felt to be metastatic to the thyroid as it was a mucin producing tumor. This 85 year old patient died of disseminated metastases in two months. His primary was not documented.

In summary, carcinoma of the thyroid cannot be considered a single entity for it consists of a multiplicity of histopathologic diagnoses with different age and sex distributions and very different prognoses. Anaplastic carcinoma continues to be an especially aggressive tumor and uniformly fatal. Most other tumor types can be cured

or controlled with lobectomy and contralateral subtotal lobectomy with radical or modified radical neck dissection for clinical nodal involvement. Close observation for local recurrence is of prime importance. Metastases are uncommon and adjunctive therapy beyond operation is rarely needed for good long term results.

Acknowledgment

We gratefully acknowledge the contribution of Jerald R. Schenken, M.D. in reviewing all slides for current histopathologic classification.

TABLE I
DISTRIBUTION OF
HISTOPATHOLOGIC DIAGNOSIS

Type	Female/Male	Average Age
Papillary	5/4	41.2
Follicular	3/2	57.0
Mixed	7/1	47.6
Occult Sclerosing	3/0	35.3
Anaplastic	5/4	71.2
Lymphoma	4/0	65.2
Hurthle Cell	1/0	60.0
Medullary	0/1	82.0
Metastatic	1/0	85.0
	29/12	55.4

TABLE II
PAPILLARY

Age at Diagnosis	Sex	Followup
17	Female	21 year A & W
26	Male	20 year A & W
38	Female	20 year A & W
39	Female	17 year A & W
58	Male	12 year A & W
44	Female	11 year A & W
39	Female	7 year A & W
60	Male	5 year survivor
50	Male	3 year A & W

TABLE III
FOLLICULAR

Age at Diagnosis	Sex	Followup
65	Female	Lost to followup
63	Female	16 year A & W
70	Male	9 year A & W
38	Female	14 year A & W
49	Male	8 year survivor

TABLE IV
MIXED PAPILLARY AND FOLLICULAR

Age at Diagnosis	Sex	Followup
47	Female	17 year A & W
63	Male	7 year survivor
45	Female	14 year A & W
28	Female	11 year A & W
35	Female	9 year A & W
57	Female	7 year A & W
47	Female	5 year A & W
59	Female	2 year A & W

TABLE V
ANAPLASTIC

Age at Diagnosis	Sex	Followup
73	Male	8 month survival
83	Female	1 month survival
80	Female	1 month survival
71	Female	2 month survival
52	Male	1 month survival
59	Male	7 month survival
61	Male	4 month survival
95	Female	1 month survival
67	Female	3 month survival

TABLE VI
LYMPHOMA

Age at Diagnosis	Sex	Followup
73	Female	3 day survivor
56	Female	4 year A & W
64	Female	18 month survivor
68	Female	3 year A & W

TABLE VII
OCCULT SCLEROSING

Age at Diagnosis	Sex	Followup
26	Female	15 year A & W
29	Female	9 year A & W
51	Female	9 year A & W

HURTHLE CELL

Age of Diagnosis	Sex	Followup
60	Female	10 year survivor

MEDULLARY

Age of Diagnosis	Sex	Followup
82	Male	18 month survivor

METASTATIC

Age of Diagnosis	Sex	Followup
85	Female	2 month survivor

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Cerebral Electric Stimulation with Thermal Biomedical Feedback

SINCE Manfred Sakel first used insulin in the treatment of schizophrenics there have been many breakthroughs in the treatment of severe psychiatric disorders. Electric shock, introduced by Meduna, followed quickly. We were on the way to emptying the mental hospitals.

The use of these two modalities revolutionized the treatment and outlook for the severely ill psychiatric patient. It is hard for us who practiced when these methods were not available, (only 1% of schizophrenics admitted to mental hospitals were ever discharged in remission) to believe the irresponsible criticism of many physicians and pseudophysicians of their effectiveness and value.

Nevertheless we psychiatrists who welcomed the opening of the door were distressed with the fear our patients had for the treatment, the fractures, memory loss, and the occasional death produced by the use of EST and insulin. We started searching diligently for something that was effective but less unpleasant.

In 1954 the major breakthrough was initiated by the introduction of chlorpromazine. It was not a substitute, but it certainly was an adjunct.

The deluge of hundreds of psychotropic drugs followed, and many cases could now be treated with them in place of the feared somatic therapy.

About the same time (1953), several people

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were developing another way of helping the problem. Two groups, simultaneously, one in Sweden and another in Switzerland, were heating the hypothalamus with radar. This stimulated the cells at that structure to more activity. These cells being the center of recognition of anxiety, fear and anger were driven to produce the alarm reaction.

The same catecholamines and ketosteroids as were found after electric shock appeared in the urine, and remissions from depression were achieved without the use of shock.

At the same time the scientists of the Soviet Union were stimulating the hypothalamus in another way. They were placing electrodes over the eyeballs and others over the mastoids. They passed a one milleampere of pulsating direct current from one eyeball to the opposite mastoid. Anatomically, these pathways cross in the hypothalamus.

The end result after 30 minutes of time caused much the same response as electric shock except that the reduction from 350 milleampere of EST to one milleampere spreading the current over 30 minutes instead of a fraction of a second caused significant changes in the results. There was no convulsion, no fractures, no cardiac arrest, and no memory loss. Both set off the alarm (fight or flight) reaction.

The pituitary gland was stimulated, and subsequently other ductless glands. Catecholamines and 17 ketosteroids appeared in large quantities in the urine though there were many individual differences. Interestingly enough those with greater increases in chemical output showed better clinical responses.

Of course the reticular formation of both the medulla and the spinal cord were also stimulated. Dilation of the arteries to the muscles and nervous system was accomplished. At the same time digestion and the other anabolic responses were turned off. For 25 years this method has been used behind the Iron Curtain.

Its use in the U.S. was delayed until about 10 years ago, and from Galveston, the news spread rapidly all over Texas. Articles from the University of Texas and many others, especially the fine work of Saul Rosenthal*† of San Antonio began to be read in other parts of the country.

The only real difference from the Russian method was a minor change. It was the placing of the electrodes above the eyes on the forehead. The name of the therapy was also changed from electric sleep to cerebral electric stimulation.

There was marked relief from anxiety, depression, and headaches in a very high percentage of cases. Improvement of psychiatric symptoms ran parallel with increase in catecholamines and 17 ketosteroids. Biochemical monitoring is quite expensive.

Biomedical feedback, especially the thermal method, accomplished essentially the same physiologic as well as mental changes. In theory both modalities achieve the same or very similar results.

One of our staff psychologists at St. Joseph's Hospital (Carman Kaiman) suggested using the two modalities together.

We started using C.E.S. and thermal biomedical feedback at the same time and little did we expect that the results would exceed our reasons for combining the therapies.

Method of using the two modalities:

The temperature probe for the thermal

biomedical feedback¹ is attached to the index or middle finger of the right hand, (if the patient is left-handed use fingers on that hand). The probe of thermister is held in place by paper tape and should be snug, but not so tight as to interfere with circulation because this would affect the skin temperature measurement.

Note: The finger is most frequently used in skin temperature training because of the high sensitivity to psychophysiological changes.

After placement of the thermister the thermal machine is turned on in order to record the baseline temperature.

The patient is then prepared for the placement of the four electrodes for the cerebral electric stimulation treatment.

The areas where the electrodes are to be placed — two of them on the forehead over the eyebrows and two over the mastoid process — are cleaned with an alcohol sponge to remove skin oils so as to assure good contact. The headband with the electrodes is placed first over the mastoids, making sure there is no hair under the moistened pad because this will cause an arcing which is uncomfortable. Then the headband with the other two electrodes is placed over the eyebrows. The electrodes are adjusted so that each one is centered above the eyes. In each electrode is fastened a small pad moistened with saline solution. Following the attachment of the electrodes the attendant gently presses the four electrodes into place to assure that the four moist pads have good contact with the skin.

The leads from the headbands are then connected with the cable which is plugged into the Neurotone machine, and the machine is switched on with the amplitude control. Rotate the control very slowly clockwise until one milleampere on the meter is reached. The patient will feel a slight tingling sensation at about .5 MA on the dial which will increase as the control is rotated. Sometimes it is necessary to halt the rotation of the control for a second or two until the increased tingling sensation abates somewhat. However, most patients will not complain of any discomfort.

At the start of the C.E.S. treatment the thermal temperature is again checked and recorded. It is recorded every five minutes during the C.E.S. treatment.

During the last 15 minutes of the 30 minute treatment phrases are read to the patient by the attendant because these phrases have been proven psychotherapeutically to achieve relaxation and many of the same clinical responses that thermal biomedical feedback and cerebral electro stimulation produce.

By association each of the three modalities enhances the other. The element of suggestion helps the patient on replaying tape recordings of the phrases in recalling the lesson learned in the use of the other two. Thus it is possible to obtain beneficial results at home without the need for constant reinforcement in the psychiatrists office.

Case #1

This case was a paranoid schizophrenic who was first seen about six months ago. She was extremely tired mentally, had many medical problems, was very depressed, had very poor sleep, and severe tension headaches. Her affect was inappropriate and flat. This case illustrates one of the exceptions to the rule which will appear in the summary because she did not have a rapid rise in the early part of her therapy. At this time she was very logic type so far as her delusional patterns were concerned. On the first treatment of July 19th, the temperature during the 30 minutes of therapy went up 3.3 F degrees in the full length of time. On the second treatment, a day later, the response was a good deal more encouraging because it went from 81 to 91.6 in the first five minutes and then remained about level for the rest of the 30 minutes. On the third treatment the rise was spectacular, it went from a 78.2 degrees to 94.6 in the first ten minutes and then leveled out. By this time the patient was becoming much more relaxed and was beginning to sleep better. The treatment on the next day, July 23, started at 86.6 and went to 96.4 in the first five minutes and to 96.8 in the first ten minutes and the patient still continued to improve quite rapidly. This continued in the next series of treatments and in the course of them, the temperature

rise was between 8.7 and 14 degrees. This type of a graph was maintained sometimes with a less rise because the mean temperature was higher but the immediate response in the first five to ten minutes was invariably present. She had her last regular treatment of the fifteen on September 7, 1976, and at that time her temperature went from 85 to 97.1 and it did so in the first five minutes of therapy. Since that time the patient has been seen regularly in psychotherapy and has had very very few problems until the last few days in which she has been in a situation of considerable stress which caused her to feel tense and tight. For that reason, it would be wise to give her a supporting extra treatment. On December 29th she was given a treatment which started at 89.8 and rose rapidly to a 97.1 and went up to 97.3 with complete relaxation. As a general rule, when one has this kind of response we find that the patient has to use less and less psychotropic drugs and the patient responds more thoroughly to psychotherapy.

Case #2

This is a 47 year old divorced white lady who was extremely depressed and had no interest in anything. She first came to see me six years ago for an extremely deep depression at which time she was markedly slowed up in psychomotor activity and cried all the time, at times was suicidal and had extreme difficulty in sleeping. There were some reactive features in its etiology but fundamentally it was associated with the cessation of menstruation. The problems of her divorce were decidedly unsatisfactory with her.

The patient had a course of electric shock and after twelve she had the usual amount of memory loss and it took her about nine months to get the bulk of her memory back, but she had to continue following along with psychotropic drugs and psychotherapy and hormones, progesterone and estrogen.

She drifted away for a little while and then became extremely depressed again and became suicidal for a second time. She was extremely frightened of electroconvulsive therapy and at the time that she first came in she was willing to try the method of

treatment that we were working on and the results are extremely interesting.

The first treatment she started out with a finger temperature of 88.7 and at the end of five minutes it had risen to 95 which is slightly over 6 degrees which we have come to know would indicate that we were having a very favorable response to the C.E.S. For the first week following the original treatment, she was extremely disturbed and the temperatures did not go up as they should, but on the fifth one the temperature arose from 80.2 up to 89.5 in the first five minutes and went on up slightly to just below 94 degrees at the end of the 30 minute period. From then on the climb was constant and by the eighth she was showing spectacular increases in her finger temperature having started at 85.7 and going to 96.3 in the first five minutes and continuing up for a slight amount in the next five minutes and then staying level. From then on the temperature arose rapidly in the first five minutes and psychiatrically the patient was almost completely anxiety free, she was sleeping well, headaches were gone, she was able to discuss objectively her problems and we were able to cut back on her medication a great deal; she has continued to improve.

Case #3

This is an extremely interesting case because he, too, had had electric shock for an extremely deep depression and when he had his first electric cerebral stimulation treatment the results, psychiatrically, though not measured by temperature rise because we were not using the thermal feedback at that time, was so spectacular that the patient was elated to the point of bragging to everybody of how much better he felt. He began to think clearly and constructively.

His intellectual capabilities increased rapidly and toward the end of his course of therapy we were able to get a rapid rise in the first five minutes of 10 to 12 points and the patient came in regularly afterwards for a period of time and then proceeded to drift away and felt that he did not need any more therapy of any kind and was extremely gratified in that his income was increased about 2½ times during that period.

It is well to note that this patient had

learned during the course of his treatment to direct the thermal temperature according to the principles of thermal biofeedback and he would be able on measurement of his finger temperature to maintain a high level on a voluntary basis and we found out that it was possible to maintain his high level of temperature without the need of using the cerebral electric stimulation.

Case #4

This patient is a young mother who came into the office extremely depressed, she was obsessive compulsive who had a problem making a psychoreligious adjustment because of thoughts which were so completely horrible to her that she could hardly live with it. In spite of the fact that C.E.S. was not supposed to work well in a patient who is an obsessive compulsive, we found that she was able to get a rapid rise and oddly enough during the administration of the treatment while her temperature was going up and staying up, she was able to discuss freely problems which without treatment she could not approach without bursting into tears and being unable to discuss the subject. She could now become objective and develop a degree of rapport which has seldom been my experience in an obsessive compulsive. This patient, too, learned to make her own finger temperatures go up, at first with the cerebral electric stimulation and then finally without it, and she has maintained a markedly improved state ever since, though she has come in from time to time for reinforcement. On the last treatment for example, with an interval of about 3 and ½ weeks from the previous treatment, she had a rise from 89 to 96 in the first five minutes and stayed up from then on.

Case #5

This patient has been a very very difficult one and if a person presents the cases he should present the failures as well as the ones in which we had good results.

This patient had been an overt schizophrenic some years ago and had received electric shock and had a fair remission, though it was necessary to maintain her on relatively high doses of psychotropic drugs even after the shock was over. When she came in this last time she was complaining of

inabilities to sleep, tremendous anxiety, deep depression, severe headaches, and no medication would give her relief from the headaches. We tried her on the cerebral electric stimulation with biomedical feedback and she was never able to raise her temperature more than 10 degrees and on several occasions the temperature actually dropped from the initial temperature that was recorded.

As is true in every patient that we have examined with this method and treated with this method, when the temperature did not go up, the results of continued therapy have invariably been a failure and this case was no different. Using another approach on this patient, we finally started using antihistamines and desensitizing her to the histamine type of headache and she improved markedly, though she is still not completely clear.

Summary

With the over 50 cases in which cerebral electrical stimulation, thermal biomedical feedback and psychotherapeutical phrases have been used concurrently there is a large enough statistical sample to allow us to infer some trends. Each of the three modalities have therapeutic values individually. Together they seem to synergize each other.

The time necessary to reach therapeutic response seems to be markedly shortened, and the persistence of results appear to be lengthened over the results achieved by either of the modalities alone.

The need for further reinforcements (use of C.E.S., etc.) is in our experience lessened. The continued use of tape recorder cassettes with the therapeutic phrases helps very much.

Other significant things have been noticed which we will now enumerate:

1. When the thermal figures show six or more degrees of elevation in five to ten minutes of the first two treatments the prognosis for satisfactory to excellent results is almost invariably true.
2. When the thermal rise is to 95 degrees or more almost complete relaxation occurs.
3. Good results are obtained in many conditions generated by psychogenic

causes such as:

- a. Tension headaches
- b. Migraines
- c. Anxiety Symptoms
- d. Sleeplessness
- e. Loss of libido
- f. Low back pain
- g. Depression of the reactive type
- h. Intrinsic depressions if the patient still has insight, and the skin temperature goes up six or more degrees.
- i. It permits rapid development and promotes a high degree of rapport in obsessive compulsive neurosis very quickly (3rd or 4th treatment) allowing psycho-therapeutic discussions of what before were tabu subjects.

It is interesting though not conclusive (not enough samples) that there was a correlation when GSR (galvanic skin response) was tried on a few cases.

4. We have had almost spectacular response in three paranoid schizophrenics in which there was a rapid rise of six or more degrees of skin temperatures in the first two treatments. It should be noted that each of these were hallucinating auditorially, but were very acute (less than three weeks after onset of symptoms) and each one had doubts about their delusional symptoms.

In our therapeutic regimen we have dropped electro-convulsive therapy. We still believe that it has a place. However, we see so few cases where it is the method of choice, that the cost of malpractice insurance which has skyrocketed makes it necessary to refer appropriate cases to physicians who are still doing EST. We estimate that we can replace 95 to 97 percent of EST with our office based modality.

This method is pleasant to the patient, has practically no risk, has none of the bad side effects and is far less expensive to the patient. Hospitalization generally can be averted.

*Double Blind Clinical Study, Saul Rosenthal, M.D., "Biological Psychiatry" 1972.

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Development and Application of the Technique of Auto-Instruction to Medical Gross Anatomy at Nebraska*

DURING the last decade, most American medical schools have experienced a progressive decrease in the number of hours allotted to the basic medical sciences. This has obviously created instructional problems which are often compounded by increased class sizes, faculty shortages, and a knowledge explosion. The stimulus-response result at Nebraska and other medical schools has been a renewed emphasis on quality teaching and the development of more effective instructional techniques. To this end, the Department of Anatomy at the University of Nebraska Medical Center is making an intensive effort to develop and apply the most efficient and effective teaching techniques possible to gross anatomy instruction.

In terms of instructional systems design, the Anatomy Department has been very active in the area of auto-instruction. Auto-instruction is a planned sequence of learning steps through which the student progresses at a self-paced rate without the direct involvement of an instructor. Experimentation with the technique of auto-instruction has shown that it is an effective method of teaching and can be used to solve many of the pedagogic problems that now plague medical education. In addition to our own experience, a number of reports support the effectiveness of auto-instruction in both the basic and clinical sciences. Auto-instruction, therefore, is a major component of our teaching program in gross anatomy. It must be emphasized that anatomy auto-instructional programs serve as learning alternatives only. No area of gross anatomy is taught solely by auto-instruction or,

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indeed, by any other method alone. In addition to various auto-instructional programs, we also provide students with lectures, laboratory dissection, anatomical models, television, movies, etc.

The following is a description of the various self-instructional programs in human gross anatomy which are utilized at Nebraska.

The Stereoscopic Anatomy Auto-Instructional Program

The Stereoscopic Anatomy Auto-Instructional Program was designed to provide students with a viable alternative and/or supplement to anatomical dissection. The complete program consists of seventy units which are organized anatomically on a regional basis. Instructional material in each unit consists of 8-10 stereoscopic slides (35 mm) taken of sequential anatomical dissections. Prior to photography, important anatomical structures were labeled and all arteries, veins, nerves, and lymphatics were colored in accordance with the standard anatomical color code. Each unit also contains a detailed set of instructional objectives

and a 15-25 minute script in written and audio-cassette forms. All units employ a mastery learning strategy which specifies a high level of student achievement ($>90\%$). To facilitate mastery learning, each unit emphasizes a student centered learning approach which encompasses such features as self-pacing, self-testing and reinforcement.

Auto-Instructional Program in Radiological Anatomy

Historically, radiological anatomy has been taught as an adjunct to gross anatomy by inspection of radiographs placed in the dissecting room. To improve the efficiency and effectiveness of this part of anatomy education, a series of self-instructional units in radiological anatomy are available which teach basic radiation protection, physics of radiology and nuclear medicine and all aspects of radiological anatomy. Each unit consists of a set of written objectives, high quality transparencies of selected radiographs or radionuclide scans, and illustrative line drawings. The units also employ cassette tape commentaries, interim quizzes with immediate feedback and post-tests. An attempt is made to correlate radiological anatomy with the other phases of the anatomy program to insure an integrated approach.

Programmed Text Instruction in Human Anatomy

In order to provide students with an alternative to traditional textbook study, a series of 40 one-hour programmed learning texts in anatomy were produced. Each unit consists of a set of objectives, pre-test and post-test, and a linear frame text. All units employ line diagrams and, where appropriate, clinical applications of anatomy are presented.

Postlethwait Units in Human Anatomy

Because many standard anatomy textbooks are deficient in their coverage of the lymphatic system, a series of six minicourses (Postlethwait-type units) was developed to cover the entire lymphatic system. Each unit consists of a detailed statement of the instructional objectives, schematic diagrams, a cassette recording, a pre-test, and a post-test.

Auto-Instructional Program in Living Anatomy

One of the more important components of the Nebraska Anatomy Program is a series of living anatomy auto-instructional packages which are used to supplement living anatomy laboratory instruction. The living anatomy program, which is currently under development, is designed to guide the student through a large number of examinations, each used in clinical physical diagnosis, such as examination of joints and nerves, percussion and auscultation of the heart and lungs, and palpation of abdominal organs, etc.

Clinical Problems in Human Anatomy

The modern medical curriculum demands relevance in the basic sciences. Accordingly, the Nebraska Gross Anatomy course is structured to achieve a high degree of clinical relevance. One of a number of devices employed for this purpose is an auto-instructional program based on clinical cases as seen in medical practice. Each unit in the Clinical Problems in Anatomy series is designed to lead the student to the correct diagnosis by application of his anatomical knowledge. For example, one slide-tape unit deals with thoracic-outlet syndrome in a telephone operator. In this unit, the student is introduced to the anatomy of the thoracic outlet and the symptomatology of neurovascular compression.

Implementation

The volume of subject matter presented in a clinically oriented gross anatomy course is enormous. It follows, therefore, that a wide array of both clinical and anatomical teaching aids are a necessity. In addition to the previously described auto-instructional programs, the Anatomy Department provides the student with clinical movies, anatomical and clinical models, labeled radiographs, transparencies, videotapes, film loops, and relevant journal articles which present the latest published clinical information on topics of interest.

The immediate availability of the various anatomy teaching aids must be coordinated with the instructional objectives which are divided into biweekly blocks. All teaching aids are, therefore, divided into biweekly

sets which are sequentially placed in the Anatomy Department's audio-visual learning center. To facilitate usage, a list and description of the biweekly blocks of teaching aids is posted. At the end of each two week instructional period, teaching aids relevant to past subject matter are relocated in the medical library and the next set of aids is placed in the audio-visual center. Students are thus exposed to new teaching aids every two weeks, but may utilize the library at any time for the purpose of review.

Evaluation

Commitment to evaluation is essential for the successful design and use of a learning system. This is especially true for auto-instructional programs where the focus of student control is transferred from the instructor to the learning system itself. In an auto-instructional system, it is the programmed subject matter that controls the student's behavior pattern and it is the system that is ultimately responsible for ensuring learner achievement of the objectives. Learner interaction with the system, therefore, must be continuously monitored and evaluated in order that any product deviating from the pre-set standards may be identified and appropriate corrective actions taken.

All of the auto-instructional program employed by the Anatomy Department are continuously evaluated and revised to correct identified deficiencies. In addition, the entire anatomy course is carefully monitored in order to determine ways in which the overall quality of instruction can be improved.

Discussion

Undoubtedly, the most important characteristic of the Nebraska Gross Anatomy course is the variety of learning methods the student can use to accomplish the instructional objectives. Students are, therefore, not dependent upon one teaching system such as lectures or laboratory to help them master the subject of anatomy. For example, most

students logically rely heavily upon anatomical dissection to learn to identify the various anatomical structures. Students are not, however, totally dependent upon dissection to help them acquire this particular ability. They can also use the Stereoscopic Anatomy Auto-Instructional Program, film loops, movies, and videotapes.

In practice, it has been found that the majority of the students will select a learning method which they feel will best enable them to accomplish a particular series of instructional objectives. Naturally, not all students choose to use the same learning methods and presumably not all available learning methods are equal in terms of instructional efficiency relative to the individual learner. For example, there are 30 programmed texts on the Anatomy of the Peripheral Nervous System. Unit post-test data indicates that these units are extremely effective teaching tools. All 30 programs, however, are not universally used by the medical students. Some students find the programs require too much working time and they are able to learn the peripheral nervous system more quickly by attending lectures, participating in the laboratory and reading the textbook. Other students find it difficult to learn the peripheral nervous system without the aid of the programs. Thus, for some students, the programs are an efficient learning device and for other students, the programs are an inefficient way to learn anatomy. These observations also hold true for the other components of our instructional system. A major objective of the anatomy instructional program, therefore, is to provide the best possible learning methods relative to the individual learner. In this way Nebraska medical students are able to use their limited time in a more productive manner and, hopefully, acquire a greater degree of knowledge.

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Innovation in Health Education — Heartline To Health

AN estimated 20 thousand people watched HEARTLINE TO HEALTH on educational television on an average Wednesday during the original 24 week series. This program generated the largest audience ever assembled for a health education activity in the state of Nebraska.

HEARTLINE TO HEALTH was developed by the Cardiovascular Center at the University of Nebraska Medical Center to provide the public with basic information on the prevention, detection and management of cardio-vascular disease. The program consisted of 24 half-hour programs, each including a 15 minute educational presentation in the form of a discussion between two physicians, and 15 minutes of live telephone questions to the physicians from the television audience. Of the 24 programs, eight focused principally on prevention of heart disease, and 16 on postcoronary treatment and various heart conditions.

Assessing the Audience

To assess the impact of the series, a continuous telephone survey of all Nebraska telephone numbers was conducted throughout the program. All people who called in questions or who wrote to the program office for additional information were surveyed to gain a profile of the viewing audience. A sample of patients contacted in physicians' waiting rooms provided additional data.

Size of the Watching Audience

The telephone survey included approximately 50 completed interviews for each of 21 weeks of the program. Telephone numbers were drawn at random from a randomly selected list of 2,000 of all Nebraska telephone numbers. 53 percent of those contacted stated they watched ETV. 3.2 percent of this group watched ETV programs the previous Wednesday night, the evening HEARTLINE TO HEALTH was presented. Of those watching ETV on the previous Wednesday, 41% watched HEARTLINE TO HEALTH.

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Extrapolation from these data to the television watching behavior of the entire state is possible, and the estimated size of the HEARTLINE audience was approximately 20 thousand people.

Nature of Watching Audience

Of 1,752 telephone interviews initiated, 1,046 (59.7%) were completed. 167 (9.5%) of the telephone numbers were non-operational, 372 (21.2%) of the calls went unanswered, and 167 (9.5%) people refused interviews. By dividing ETV watchers into those who had watched HEARTLINE TO HEALTH and those who had not, a clearer picture of the HEARTLINE viewer appears.

Although the sample of the HEARTLINE viewers was small, consistency of data across the continuous surveys lends support to suggested trends. Compared to ETV viewers who did not watch HEARTLINE, the HEARTLINE viewers were predominantly female (81.4%) and older (median age 55 yrs.), and had more personal experience (either themselves or members of their household) with heart disease. The difference in prevalence of heart disease for viewers and nonviewers was, however, not large. The majority of viewers learned about the program from newspapers (27%), TV advertisements (20%), Choice magazine (13%), by random dial flipping (8%), or from a friend (8%).

Motivated Watchers

Persons who wrote in or called in specific questions concerning the program's content were classified motivated watchers, and were subject to a special mail questionnaire. A total of 580 questionnaires were mailed with 425 responses after one follow-up letter for a reply rate of 73.3%.

Motivated watchers were equally divided between males and females. This is in contrast to the findings of the telephone survey in which only 19% of the HEARTLINE viewers were male. The median age of the motivated viewer was 56 years, similar to the median age of all HEARTLINE viewers.

As the series proceeded, an increasing proportion of the motivated watchers were Omaha/Lincoln residents with a corresponding decrease in representation of viewers from rural areas and towns of less than 10,000 residents. This increasing underrepresentation of rural areas is possibly due to working hours extending late into the evening in response to longer daylight hours in the spring. The series ended on May 21, 1975. The educational level of motivated watchers varied with almost equal proportions of high school and college graduates. Over 70% indicated they watched ETV either daily or several times a week.

In this sample of motivated watchers 81.2% had seen a physician within the last 6 months, very few (5.8%) smoked more than one pack of cigarettes a day, and nearly one half (42.6%) reported having a known heart condition, in sharp contrast to the 14% of the HEARTLINE viewing audience identified in the telephone survey. Despite these statistics, only 18% indicated that their health status was below average. One third of the motivated watchers indicated someone in their household had a heart condition (33.4%), in contrast to the 18% of the HEARTLINE viewers in the telephone survey.

Patient Watchers and Non-Watchers

Originally, the evaluation design sought to assess whether HEARTLINE TO HEALTH actually motivated high risk individuals to seek medical attention. This proved impossible. A one-week questionnaire survey of

patients waiting for appointments in physicians' offices did, however, provide additional data on the HEARTLINE viewer. 917 questionnaires were completed. 37 percent indicated they had heard of the program HEARTLINE TO HEALTH, but only 17% had actually seen one or more of the HEARTLINE programs.

The sex and education of these viewers do not appear to differ substantially from nonviewers. However, the association with age is substantial. Again it was the older person who tended to watch HEARTLINE. The median age (49.0 years) of the patient watcher however, is not as high as found for the motivated watchers (56.4 years).

The presence of a known heart disease for either themselves or members of their households was more prevalent among HEARTLINE viewers. This factor, however, is associated with a minority of the viewing sample. Fewer HEARTLINE viewers smoked more than one pack of cigarettes a day (4.6%) than did the general patient sample (11.8%). The two groups expressed little difference in their belief that they were overweight. A last interesting finding is that less than 8% of the patients in physicians' waiting rooms felt their present health status was below average.

Summary and Implications

During the 24 weeks an estimated average 20,000 Nebraskans watched HEARTLINE TO HEALTH. Data indicated the watching audience to be older and to have had more contact with heart disease than nonwatchers. This involvement with heart disease may have motivated watching behavior.

Results from both the telephone survey and the motivated watchers survey pointed to the difficulties in using education television for public health education. In this case, a program designed to educate the public about heart disease, in the hope of identifying and reducing known risk factors attracted older viewers who had already had experience with cardiovascular diseases. The programs did not reach the younger "at risk" population. This failure is partly explained by the fact that, with a few noted exceptions, the evening educational television

audience contains a relatively small population of young people.

However, HEARTLINE TO HEALTH was a successful first attempt to confront Nebraska's number one health problem educationally. As a program it reinforced the concept that an informed patient seeks help

quicker, and is more responsible and cooperative in the treatment process. Further, HEARTLINE TO HEALTH began to define educational means to reinforce appropriate behavior in the viewing audience and identify personal risk factors that can be managed, to a large degree, by changes in personal behavior.

Fifty Years

I am 73 years old and at present live in Prescott Valley, Arizona.

ARNOLD J. MULLMAN, M.D.

I graduated from High School at Lyons, Nebraska in 1921. The following year entered Creighton University Omaha, Nebraska. I interviewed the Dean of Art College Father Grace S.J. I enrolled in premedic and for two years attended premedic college on the Hill, staying at St. John's Hall. Getting through premedic I entered Creighton College of Medicine, which I attended four years. My second year I received a B.S. Degree. I graduated from medical school in 1927. My first year of internship was at St. Mary's Hospital Kansas City, Missouri. Then I entered at the Wabash Hospital Decatur, Illinois for training in Medicine and Surgery. Having spent one year in residency I decided to be a general practitioner and located in Talmage, Nebraska spending three years as a country doctor. I took my surgery to Nebraska City a county seat town that had a Hospital. After three years there sold my practice and started out for Chicago, Illinois. Going through Adel, Iowa stopped at a filling station for gas, the attendant told me a practitioner had left and they needed a doctor. Looked the town over and decided to look up the doctor who had left to go to Des Moines, Iowa. From him I purchased his practice and remained there for ten years.

While practicing in Adel, Iowa saw a young female patient who had an acute appendix. She was hospitalized in Des Moines, Iowa and a laparotomy was done, an acute inflamed appendix was removed, there were numerous glands present, one was removed for biopsy. The biopsy returned as

Hodgkin's disease and the patient was so informed. She made an uneventful recovery. At a later date she made a request that she consult another physician who happened to be Dean of the University Medical School Omaha, Nebraska. A diagnosis at that time was made of a fungus disease, she returned home but later died, and postmortem disclosed Hodgkin's disease.

By this time war had been declared and I decided to go into the service. I went to Chicago, Ill. and made an effort to join the Navy, but was denied entrance because of a fractured vertebra I had received in an automobile accident, but had made a complete recovery. I went back to Omaha, Nebraska to visit my parents and as I passed the U.S. Army recruiting station in North Omaha I went in and told them of my experience with the Navy. They immediately gave me papers to fill out, telling me they needed doctors in the Army. In several weeks I received orders to report to Army headquarters in Washington D.C. where I was assigned to the Red Cross having charge of a Blood Donor Center doing as many as 500 donors daily. I spent eight months there. I was then assigned to the South Pacific spending time in New Guinea, Philippine Islands, and Japan for approximately three years. From Japan returned to U.S. and was discharged from the Army.

After being discharged from the Army I located in Perry, Iowa and practiced there as a general practitioner for 10 years. During the time I was in Perry, Iowa I had a most

lucrative practice. On one occasion I interviewed a patient from Adel, Iowa. He complained about having enlarged glands in neck. Physical examination was negative. He was advised to have one gland in neck removed, it was suggested he consult a surgeon in Des Moines, Iowa. He insisted that I remove the gland, so I had him hospitalized in Perry, Iowa. The enlarged gland in neck was removed and sent to pathologist at Methodist Hospital in Des Moines, Iowa. The biopsy returned Hodgkin's disease. The patient was so informed and an attempt made to transfer him to Rochester Clinic in Minnesota. A biopsy report and slide was sent with him. There they found no more evidence of Hodgkin's disease, but prophylactically received x-ray therapy on neck. He was advised to have x-rays of chest and physical examination every six months which he did. Years later going through Iowa we stopped at Rockwell City, Iowa to see a classmate of my wife's from nurses training, she insisted we wait to meet her husband who was a physician. Within the hour he came by and made the statement that he knew about me because of his patient who had lived in Rockwell, City, and had been the patient of mine who I had operated on gland

in neck for Hodgkin's disease, who was at the present time in the Far East teaching people modern methods of farming.

While in Perry, Iowa in December of 1953 a friend from Adel, Iowa went with me to Omaha, Nebraska to visit my parents. He was driving the car and we hit a dead end going at a high rate of speed. He was thrown out of the car and died instantly. I was thrown out of car as it turned over many times. I received a concussion, severe lacerations on right side of face, fracture right arm, fracture of ribs anterior and posterior, fracture of ankles, femur and pelvis, fractured jaw. I was taken to an Osteopathic Hospital at Greenfield, Iowa for emergency treatment, and was later transferred to Methodist Hospital in Des Moines, Iowa where I was unconscious for three months and was hospitalized for nearly a year.

In May of 1955 I located in Oakland, Nebraska where I did general practice for 19 years including many obstetrical cases and surgery. While there I delivered three sets of twins to one family. In December of 1973 was forced to retire for health reasons. In 1974 we moved to Prescott Valley, Arizona where I am enjoying my retirement.

Down Memory Lane

1. Next to the appendix, the gall-bladder is the most vulnerable organ in the abdomen.

2. I think the doctor's advice to retire is bad.

3. In the last thirty years, the outstanding advances are the local foci of infection.

4. It is fortunate indeed that the governments, both Federal and State appreciate the economic value of the child, and their work both in education and financing the various health programs cannot be too highly commended.

5. In the diagnosis of all gall-bladder conditions, the history is the most important single factor in reaching a conclusion.

6. Many of our school children are over-worked and under-rested.

7. There were 29,179 births in Nebraska in 1925 with 160 maternal deaths; and 28,287 births in 1926 with 179 maternal deaths. This means less children born, with more mothers sacrificed.

8. If we thought it would do any good, we would object to the lay press calling a physician who has been in practice twenty years, a pioneer.

9. The x-ray examination of the gall-bladder prior to the introduction of the use of the dyes was somewhat uncertain and on the whole rather unsatisfactory.

10. All children should receive careful physical examination at least before the beginning of each school semester.

Nebraska State Medical Journal
September, 1927

President's Page

TIME TO FISH OR CUT BAIT

The PSRO law exists. There's no question about the law, it is a statute. The physicians in the state have been resistant to the law, knowing they have had a leeway of time, but now time is running out.

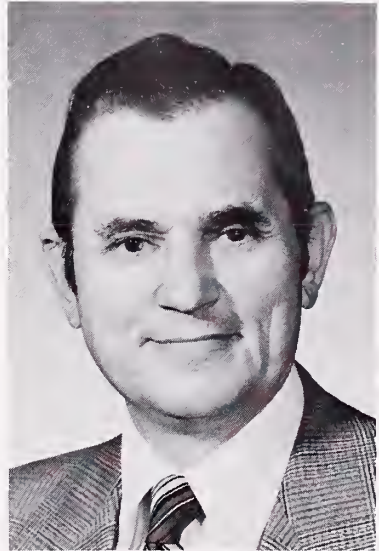
The law was designed to improve quality of medical service and to cut cost of medical service. Cutting cost has not been evident in experiences with PSRO. Actually the cost, which would have to be considered as added cost, is from \$10.00 to \$36.00 per case that was reviewed, but there are also figures to show that the cost has been as low as \$1.00 per case. The cost factor is also escalated because to improve the quality of medical care is to use more sophisticated tests and of course this increases the expense.

There is some evidence that there is an increased improvement of quality care with PSRO, but there is also an increase of quality of care in voluntary utilization and peer review, but this has been without additional cost.

There are 105 conditionally approved PSROs with 39 more approved for planning activities and 26 more in various stages of contract negotiations. There are two areas that have failed to get physician approval. This leaves 25 designated areas not covered and Nebraska, as a state, is one of them.

Some have hoped the program would run out of money and maybe it will eventually, but there has been a hundred and forty-eight million dollars appropriated for the PSRO activities for 1978 with an additional 29 million obligated from Title XIX to expand hospital implementation and long term care and ambulatory review. This means the program will be viable for at least a year.

Beginning January 1, 1978 HEW has the prerogative of assigning *alternate* PSRO areas not having one of their own. This could mean a neighboring PSRO could review our state or it could be the Blues, Mutual, Public Health, Universities, or possibly other exist-



ing entities or created entities that would do the work for us. Of course they would get paid for it the same as doctors would get paid if they did it. The going rate is now \$35.00 an hour per doctor.

The present stand of the Nebraska Medical Association is one of carefully monitoring the PSRO activities. We have a very knowledgeable PSRO committee that has followed closely the development of the PSRO.

There was some talk this spring that the government was to start considering alternate PSRO for our state because we were not yet in the negotiating stage but word of authority now indicates we have been given a reprieve until our fall session of the House of Delegates to make a final decision to reject PSRO and let the government select one for us or to set up our own PSRO.

So, fellow colleagues, I implore you to seriously consider this matter. Each of you should contact your delegate to the Nebraska Medical Association or to the PSRO committee of our state and tell them how you feel about PSRO so when the House votes this fall it will be according to your wishes, and if our boat sinks we will all sink together.

Now our choice is to "Fish or Cut Bait," to review or be reviewed. If we elect not to fish we'll have to stay on the bank and cut bait letting the other person do the fishing. If we decide to fish, that is, set up our own PSRO we will decide what fish to keep and which to throw back. If we decided not to set up a PSRO we will let someone else decide which

fish are acceptable or what medical case meets acceptable standards and which do not. It is still your choice but not for long, so become knowledgeable to current problems and express your concern to our State Society.

Arnold W. Lempka, M.D.
President, N.M.A.



The Auxiliary

CONVENTION HIGHLIGHTS San Francisco — 1977

QUOTES FROM CONVENTION — "I'll give you a corn cob, if I may have a rose." (Delegates from Nebraska and New York exchanging emblems to stick on their ID badges.)

"B-r-r-r, I didn't know it was so chilly in San Francisco in June."

Membership Theme: "Accept our hand in friendship and pass it on."

Dr. James M. Blake, President AMA ERF, recognized the Auxiliary's efforts in collecting \$1,512,566 this past year and commended all state and local ERF chairmen.

A goal of communication is listening. "What we say is not always what is heard."

"We are banking on you" to use the 500 tried and true projects listed in the Project Bank.

In his keynote address, Dr. Tom Haggai, minister and radio personality, said, "Provide services, not handouts. Help a person to be more tomorrow than he is today."

The retiring President of the AMA, Dr. Richard E. Palmer, asked Auxiliary help in the fields of immunization, TV violence and National health Insurance. "Gallup poll shows most of the public favors some form of NHI. Therefore, it ill behooves organized medicine to be negative on this subject."

"All TV is educational. The question is, what is it teaching?"

"Each year we build a step upon which the next president can climb." — Mrs. Leo J. Schaefer, past national president.

"We need long-range vision. We can't accomplish big things if we think small." —

Mrs. Chester L. Young, AMA Auxiliary President.

Mrs. Gordon D. Francis
Chr. of Delegates, Im. P. Pres.

Was anybody listening? You bet they were! One thousand officers and delegates were listening during Prime Time on two consecutive days of the National Convention. Representatives from the 50 State Auxiliaries gave a 2-minute report on a specific project carried out during their year.

Harriette Francis, Nebraska's immediate Past President, gave an impressive account of her own County's Rape Seminar. Projects reported by other Auxiliaries included Delaware's free clinic for breast screenings; Florida's special Mental Health Project: The Impaired Physician; New Jersey's First Year of Life Program, an extension course for Parents. Many were involved in CPR Classes; emphasis on AMA ERF or State Loans for students; Fund raising for hospitals; Auxiliary membership. The list was varied.

It was exciting! The National slogan "We can do more together" suddenly became alive. Are you listening? JOIN US . . . We can do more together to make a difference in Nebraska.

Dorothy Shaffer,
President Elect

To have been the presidential delegate from Nebraska was a glorious experience. To be one of the large group of doctor's wives in attendance gave me a new sense of identity and pride in my husband's profession. Rose Gardner closed her year as National President by reminding us that we must keep working to involve our membership in vital community health needs, always remembering that "One person can make a difference." Lela May Young, the current National President, urges us to choose to become involved in things we believe in, and to become more visible as doctor's wives. Demonstrate by our choices that we care what happens to people.

Dorothy Matson
Presidential Delegate



Helen L. Hayes, (Mrs. O. R.)
State Chairman, Health Galleries
Fund Raising Committee
Nebraska Medical Association Auxiliary

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P.O. Box 30186
Lincoln, Nebraska 68503.

Make check payable to:
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Total cost of the Health Galleries Project \$500,000.00
Goal for support from Medical Community 150,000.00*

*House of Delegate action October 1976

47% of the \$150,000.00 has been raised through contributions
made by physicians listed in the Nebraska Medical Journal.
All monies raised will be used for the development of the
exhibits in the galleries.

(Continued on next page)



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Our Medical Schools

Courses at U. of N.

1. The University of Nebraska Medical Center will conduct a course in neurology at the Garden, Ramada Inn, Hastings, September 7, 1977.

Course coordinators are Drs. F. Miles Skultety and Frank Koranda.

The course is acceptable for three prescribed hours by the American Academy of Family Physicians.

Registration fee of \$30 includes dinner.

2. Registration has been closed for the Medical Center 1977 Family Practice Review courses September 12-23 and October 3-14.

3. The review course for the physician's assistants on the same dates has also been filled.

Fundamentals of accounting, management tax & estate planning for the professional; Sept. 30, 1977, Creighton University Campus, Omaha, Neb. Sponsored by Creighton University School of Medicine and College of Business Administration. This course is designed for the practicing physician with some knowledge and experience in management of a practice. Topics covered are: Accounting Information Systems, Management of Operations and Internal Control; Business Organization Forms, Tax Planning; Personnel Management in Health Care Administration; Estate Planning. Write to: Division of Continuing Education, Creighton University School of Medicine, 2500 California St., Omaha, NE 68178, 402/449-2550.

Coronary care and the practicing physician.

Feb. 15-17, 1978, St. Joseph Hospital, Omaha, Neb. This continuing medical education offering meets the criteria for 20 credit hours in Category 1 of the Physician's Recognition Award of the AMA, provided it is used and completed as designed. Program is acceptable for 20 prescribed hours by the American Academy of Family Physicians.

Hypertension for the clinician.

Dec. 1-2, 1977, Hilton Hotel, Omaha, Nebr. Cosponsored by Creighton University School of Medicine and CIBA Medical Horizons. This continuing medical education offering meets the criteria for 13 credit hours in Category 1 of the Physician's Recognition Award of the AMA, provided it is used and completed as designed. Program is acceptable for 12 prescribed hours by the American Academy of Family Physicians.

Radiology.

Radiology of the abdomen, with emphasis on ultrasound and computed tomography will be the subject of a continuing education course at the University of Nebraska at Lincoln, October 14 and 15.

Robert Devaney, athletic director of the University of Nebraska, will speak at the banquet Friday evening.

Guest faculty includes Dr. Elias Kazam, assistant professor of radiology, Cornell medical college, and Dr. Thomas F. Meaney, chairman, division of radiology, Cleveland Clinic, Cleveland, Ohio.

Course coordinator is Dr. Roger Harned, associate professor of radiology at the University of Nebraska College of Medicine.

The registration fee of \$95 includes lunches, banquet, and amenities.

Lung Association grants.

Irving Kass, M.D., President of the American Lung Association of Nebraska, has announced that grants totaling \$20,000 have been awarded by the Lung Association to support four research projects in the field of lung diseases. Dr. Kass is head of the Regional Chest Center, University of Nebraska College of Medicine.

Sheldon M. Schuster, Ph.D., Assistant



Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

Most Widely Prescribed—Antivert is the most widely prescribed agent for the management of vertigo* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.

Relief of Nausea and Vomiting—Antivert/25 can relieve the nausea and vomiting often associated with vertigo*.

Dosage for Vertigo*—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

***INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG 
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert[®]/25 
(meclizine HCl) 25 mg. Tablets
for vertigo*

GET MOVING, AMERICA!

It feels good to feel fit
physically, mentally, emotionally.
So learn a skill you can play for life.



Sponsored by
American Alliance for Health, Physical Education and Recreation
1201 16th Street, N.W., Washington, D.C. 20036



TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE **DYAZIDE®**

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

MAKES SENSE

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

* Warning

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids).

Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+ . Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis.

'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions;

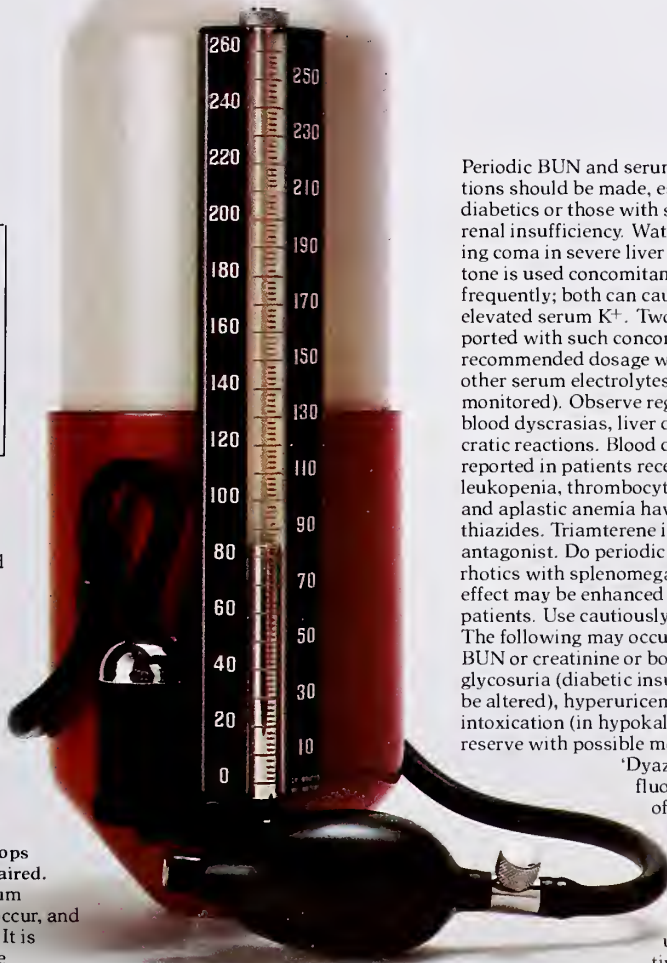
nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

**FOR LONG-TERM CONTROL
OF HYPERTENSION.*
SERUM K^+ AND BUN SHOULD
BE CHECKED PERIODICALLY.
(SEE WARNINGS SECTION.)**

SK&F CO., Carolina, P.R. 00630

SK&F CO.
a SmithKline company



B.W.CO. HAS PUT MORE POTENCY IN THE LINE



EMPRACET® with Codeine Phosphate, 60 mg, No. 4 Ⓢ

EMPRACET® with Codeine Phosphate, 30 mg, No. 3 Ⓢ

CONTRAINDICATIONS: Hypersensitivity to acetaminophen or codeine.

WARNINGS: Drug dependence. Codeine can produce drug dependence of the morphine type and may be abused. Dependence and tolerance may develop upon repeated administration; prescribe and administer with same caution appropriate to oral narcotics. Subject to the Federal Controlled Substances Act.

Usage in ambulatory patients. Caution patients that these products may impair mental and/or physical abilities required for performance of potentially hazardous tasks such as driving a car or operating machinery.

Interaction with other CNS depressants. Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) may exhibit additive CNS depression; when used together reduce dose of one or both.

Usage in Pregnancy. Safe use is not established. Should not be used in pregnant patients unless potential benefits outweigh possible hazards.

PRECAUTIONS: Head injury and increased intracranial pressure. Respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal condition. These products or other narcotics may obscure the diagnosis or clinical course of acute abdominal conditions.

Special risk patients. Administer with caution to certain patients such as elderly or debilitated patients and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, or prostatic hypertrophy or urethral stricture.

ADVERSE REACTIONS: Most frequently include lightheadedness, dizziness, sedation, nausea, and vomiting; more prominent in ambulatory than in nonambulatory patients; some may be alleviated if patient lies down; others include: euphoria, dysphoria, constipation and pruritus.

DRUG INTERACTIONS: CNS depressant effect may be additive with that of other CNS depressants. See Warnings.

For symptoms and treatment of overdosage and full prescribing information, see package insert.

Introducing **EMPRACET®** **Ⓢ CODEINE #4**

Each tablet contains: codeine phosphate,
60 mg (1 gr) (Warning—may be habit-forming);
and acetaminophen, 300 mg.



Our new non-aspirin/ codeine analgesic for moderate to severe pain.

New peach-colored Empracet Ⓢ Codeine #4 offers a potent alternative for patients in whom aspirin is not indicated.

Unlike compounds containing oxycodone which afford comparable analgesia, new Empracet Ⓢ Codeine #4 gives you CIII prescribing convenience—up to 5 refills in 6 months at your discretion (where state law permits). And, prescribing by telephone is permissible in most states. Moreover, new Empracet Ⓢ Codeine #4 has less addiction potential than does oxycodone.

For those of your patients requiring a less potent analgesic, non-aspirin Empracet® Ⓢ Codeine #3 provides effective relief of moderate pain.

Burroughs Wellcome Co. makes codeine combination products. You make the choice.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Professor of Chemistry and Life Sciences, Dept. of Chemistry, University of Nebraska, Lincoln, is studying the effects of environmental pollutants on certain sensitive enzymes present in lung tissues.

Edward A. Chaperon, Ph.D., Associate Professor, Medical Microbiology, Creighton University School of Medicine, is seeking to determine if an inherited deficiency in the thymus gland may be a cause of allergic asthma in families.

Hoda A. Guirgis, Ph.D., Associate Professor of Biochemistry, Creighton University School of Medicine, is studying whether an inherited factor makes certain individuals more susceptible to lung diseases such as cancer and emphysema.

Gordon E. Gibbs, M.D., Research Professor of Pediatrics, University of Nebraska College of Medicine, is continuing work on development of a more reliable test for identifying carriers among siblings of cystic fibrosis victims.



Left to right, Drs. Gibbs, Guirgis, Chaperon, Schuster, and Kass who is presenting a \$20,000 check to the four researchers.

The Letter Box

Dear Doctor Cole:

Congratulations, Dr. Cole.

Just great!

Herb Auer

Michigan State Medical Journal

Dear Dr. Cole

Congratulations on being number one. It must be very rewarding to you to have gained this recognition. I hope that you continue in your efforts with as much success as you've had in the past.

Sincerely,

V. Franklin Colon, M.D.

competition was pretty stiff, and I think that this prize represents a true accolade.

Your service to the Nebraska Medical Association, in my opinion, is exemplary. I read the State Journal with a great deal of interest, and will continue to pursue this part of my vocation.

Again, Congratulations! I hope that the Sandoz Corporation will be able to present this award to you as a representative of the association on the occasion of our next annual meeting.

Sincerely,

George J. Lytton, M.D.

Clinical Director

Hastings Regional Center

Dear Dr. Cole:

I read the July, 1977 issue of the Nebraska Medical Journal with a great deal of interest. The first prize in medical journalism that you reported won the cockles of me heart. As a former editor and reader of organizational journals with avidity, I know that your

Dear Frank:

Congratulations on your recent Medical Journal award. I know that you are proud of this and it is well-deserved.

Sincerely,

Howard A. Dinsdale, M.D.

Between Cases

I've Been Reading.

There was a Saki and a Poe, and I picked them up and leafed through them alternately. I read one of Saki's Superbeasts and looked at Poe's Purloined Letter. But then I noticed that Poe had not only medical as well as other scientific leanings, he had anticipated us once or twice. In *The Tell-tale Heart*, the heart goes right on beating after its owner is dead, which hearts will do if they are stimulated. In *Some Words With A Mummy*, he said he wanted to know who would be President in 2045, so he decided to "get embalmed for a couple of hundred years." And now people are wanting to freeze themselves and be thawed out after a while. And then Poe wrote something called *Loss of Breath*.

Q & A

It is not meaningful to ask what happened before the big bang; it is somewhat like asking what is north of the North Pole. Similarly, it is not sensible to ask where the big bang took place. Gott, Gunn, & Tinsley: Will the universe expand forever? *Sci Am*: "Cosmology+1":85.

Sorry we asked a question you couldn't answer. It must be nice to be able to say, that is not a nice question, you shouldn't have asked it. I'll remember that the next time they let me speak and somebody asks me a hard question.

The Congress And The Legislature.

Why do they vote yea or nay? Can't they say yes or no?

The Diagnosis.

Complaint: pain in left thigh and calf.

Impression: left thigh and calf pain.

They're The Same.

Paludism: malaria.

Enteric fever: typhoid.

A Little Table (1).

Infant Mortality, United States,
Per 1,000 Live Births.

1970	20.0
1975	16.0
1976	15.1

Right.

No one but your doctor really wants to know when he asks, "How are you?"

Anon.

Quote Unquote.

Anything that is worth knowing one practically teaches oneself, and the rest obtrudes itself sooner or later.

Munro (Saki).

Little Table (2).

	Death rate per 100,000
Legal abortion	3.9
Tonsillectomy	5.0
Appendectomy	352.0
Something like a million legal abortions are performed in the U.S. each year.	

Postgraduate Gems.

When you hear hoofbeats, think of horses,
not zebras.

—F.C.

Welcome New Members

Norberto Silva
Falls City
Nebraska 68355

Milton R. Johnson, M.D.
313 West 38th Street
Scottsbluff, Nebraska 69361

Books



Reprint of "History of Medicine in Nebraska;" Albert F. Tyler, M.D., Editor; Ella F. Auerbach, Compiler; augmented by Bernice M. Hetzner, University of Nebraska Medical Center, Omaha, Nebraska; hard cover; 662 pages plus index; reproduction by Uni-graphic, Inc., 1401 North Fares Ave., Evansville, Indiana 47711, 1977.

The title page originally read Omaha, Nebraska, Magic City Printing Company, 1928, but the book did not appear until 1930. It was at the start a labor of love given to us by its Editor and Compiler. It has been my source for some time and on many occasions, and I regretted only that I could not own a copy.

Francis A. Long, M.D., the first Editor of the Nebraska State Medical Journal, reviewed the book in 1930 and gave it his blessing, but noted the lack of an index. Bernice Hetzner, who I suspect may be the best medical librarian there ever was, has made the book more valuable than ever. She has supplied an index, errors have been corrected, and documentation is supplied for further investigation. "Notes and Errata" follow each of 11 chapters, and there is a 14-page subject index, followed by a 68-page index of names; they are of immense value and they are accurate.

The augmented edition is a labor of love twice over, now given to us by Bernice Hetzner, and if this volume was once my source book, it has become my friend, for now I can find what I am looking for without random searching based only on chapter headings and endless page turning that could only be arduous and less than perfect.

We are all historians, we are story tellers, we are more than bread-and-butter doctors; and I am grateful to Bernice Hetzner for having worked hard and long to do what I wished had been done long ago. Nebraska physicians are necessarily grateful to "one librarian

who has a passion for accuracy and a desire to set the record straight for future students of Nebraska medical history."

I finally own the book, and I will not lend it; it is usable as never before, not with prolixities docked or dullnesses enlivened, but with its truths multiplied. Add it to your library. You may practice medicine without it, but you cannot enjoy being a Nebraska doctor without it.

Highly recommended.

—F.C.

Review of physiological chemistry; by H. A. Harper, Ph.D., V. W. Rodwell, Ph.D., and P. A. Mayes, Ph.D., D.Sc.; soft cover \$13.00; 681 pages; published 1977 by Lange Medical Publications, Los Altos, California.

This book first appeared in 1939 and is now in its 16th edition, with a new edition coming out every two years at this time. There are five other authors in addition to the three named above (who did most of the writing). The text is divided into 8 sections and further into 40 chapters. There is a list of abbreviations, and there is a good index. A bibliography is supplied, consisting of a list of unnumbered references at each chapter ending.

The print is good, and reading is easy. There are many figures.

Recommended.

—F.C.

Books received.

Growth, maturation, and aging; Imaizumi, Tadayoshi; hard cover, 118 pages; published 1976 by Kugayama Press, Tokyo.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —

October 8 — Ainsworth — Elementary
Grade School

October 29 — Alliance — Central School
Building

UNIVERSITY OF NEBRASKA FOUNDATION —

Steinhart Grant, Research Seminar on Physical Fitness and Mental Health Luncheon, 12:00 noon, September 8, 1977, Nebraska Center for Continuing Education (Dr. Kenneth Cooper, Speaker).

37TH ANNUAL AMA CONGRESS ON OC-

CUPATIONAL HEALTH — September 19-20, 1977, at Stouffer's Riverfront Towers in St. Louis, Missouri; cosponsored by the National Institute for Occupational Safety and Health, is open to all health professionals and is of particular interest and help to part-time occupational physicians. Concurrent sessions will cover health programs for special employee groups, work stress and job performance, the vital role of the occupational health

nurse, toxic substances in industry, emergency medical/disaster planning, and many other topics. Registration fee for the Congress is \$40.00. The Congress provides 12 hours Category I credit toward AMA Physician's Recognition Award. Write to: Department of Environmental, Public, and Occupational Health, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

COLONOSCOPY TRAINING PROGRAM —

The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

NEBRASKA MEDICAL ASSOCIATION

FALL SESSION — September 29 & 30, October 1, 1977, Lincoln Hilton Hotel, Lincoln, Nebraska.

NEBRASKA CONFERENCE ON COMPREHENSIVE HEALTH EDUCATION —

October 18, 19 & 20, 1977, Nebraska Center for Continuing Education, University of Nebraska Campus. Sponsors: Ne-

braska Inter-Agency Health Council, Health Systems Agencies, Health Planning Division of the State Department of Health.

LAKE SHARPE GOOSE CLUB —

Medical seminar; The cardiovascular patient; Pierre, S.D.; Kings Inn; Oct. 20-21, 1977. Write to: Great Lakes Association, P.O. Box 786, Pierre, S.D.

45TH ANNUAL POSTGRADUATE AS-

SEMBLY, Omaha Mid-West Clinical Society; Omaha Hilton Hotel; October 31, November 1 and 2, 1977. For information contact: Janet S. Noll, Executive Secretary, Omaha Mid-West Clinical Society, 540 Medical Arts Building — 402-345/7146, Omaha, Nebraska 68102.

AMERICAN MEDICAL ASSOCIATION —

Interim Session, House of Delegates. December 4-7, 1977, Palmer House, Chicago, Illinois.

NEBRASKA OBSTETRIC GYNECOLOGIC

SOCIETY (NOGS) — Annual Scientific Session; Frontier Hotel, Las Vegas, Nevada; December 8-11, 1977. Write to: Dr. Dennis Beavers, Secretary-Treasurer, 8552 Cass Street, Omaha, Nebraska 68114.

AMERICAN MEDICAL ASSOCIATION —

Winter Scientific Program, December 10-13, 1977, Miami, Florida.

NEBRASKA MEDICAL ASSOCIATION

ANNUAL SESSION — April 30 - May 3, 1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION —

Annual Convention, June 17-22, 1978, St. Louis, Missouri.

WashingtonNotes

Health care costs.

Strong pressure from President Carter and other Administration officials and a desire by Congress to get some handle on rising health care costs appear to be weakening Congress' previously firm sentiment against the Administration's Hospital Cost Containment program. Some Hill observers now believe the plan — in some form or other — is picking up enough momentum to clear Congress this year, a possibility viewed as remote earlier in the session.

The Cost Containment plan calls for imposition of an annual ceiling of about nine percent on all hospital revenue increases. It places a \$2.5 billion limit on capital expenditures. Major health provider groups, including the American Hospital Association and the AMA, have assailed the plan as a revival of the discredited wage and price freeze several years ago.

Other versions of the Administration's plan, however, are taking shape in the Congress. Here are some recent developments:

****Rep. Paul Rogers (D-Fla.),** Chairman of the House Commerce Subcommittee on health, has introduced a modified version of the Administration bill and held one day of public hearings.

****The House Ways and Means Subcommittee on Health** headed by Rep. Dan Rostenkowski (D-Ill.) has started marking up a measure following introduction of a version by Rostenkowski.

****Sen. Edward Kennedy (D-Mass.)** called his Senate Human Resources Subcommittee on Health to put together a bill containing major elements of the Administration plan.

****Sen. Richard Schweiker (R-Pa.),** ranking Republican on Kennedy's subcommittee, has introduced an alternative plan that would beef up state control of hospital costs and prohibit capital expenditures for 18 months. Schweiker has been joined by Sen. Thomas McIntyre (D-N.H.).

Public hearings now have been completed on the issue by three of the four Congressional committees with jurisdiction. The exception — the Senate Finance Subcommittee on Health — has conducted public sessions on Legislation by Subcommittee Chairman Herman Talmadge (D-Ga.) that is limited to restrictions on Medicare-Medicaid spending by hospitals, but could be broadened to include all revenues.

The AMA has testified that the Rogers' bill "unfortunately retains those programs which would in effect allow the (HEW) Secretary to determine revenue increases, capital expenditures, and utilization rates." The arbitrary limitations on revenue increases "would prove to be disastrous for many hospitals, especially to the already more efficient hospitals and those hospitals which are located in rural areas," said Edgar T. Beddingfield, Jr., M.D., Chairman of the AMA Council on Legislation.

The major changes made in the Administration plan by Rogers would extend the government's power to regulate the purchase of new major medical equipment, provide incentives for hospitals to eliminate services, and award hospitals for cutting costs. Dr. Beddingfield lauded the concept of incentives, but questioned the details of the new plan.

Under the measure, expensive equipment purchased for use in a physician's office could be subject to a certificate of need restriction. Dr. Beddingfield attacked this provision. "Any initial inroads into medical practice seeking to control physician offices or the acquisition of practice equipment would jeopardize the independent practice of professions," he said.

Drug package warning labels.

A bill before the Congress would mandate that prescription drug packages would carry a warning label stating:

"Warning to physicians and patients — the Federal Food, Drug and Cosmetic and Devices Administration approves this drug or device for the following purposes and no other purpose."

Drugs would be accompanied by patient package inserts approved by the FDA explaining in layman's language the uses of the drug, a description of the side effects, and so on.

This provision of a sweeping drug measure proposed by Sen. Edward Kennedy (D-Mass.) was attacked by the AMA. "By setting out in bold print and by directing the warning to physicians and patients, the statement raises a spectre that a drug as prescribed is dangerous," said Lowell H. Steen, M.D., a member of the AMA's Board of Trustees. "We believe that such a phrase unduly intrudes into the practice of medicine in an attempt to limit in some manner the use of a drug," said Dr. Steen.

"To mandate a drug label warning that in any way suggests that a drug can, because of special federal approval, be used properly for only certain conditions and not for any other condition is an improper attempt to restrict the necessary freedom of the physician to prescribe the needed treatment," Dr. Steen said.

Dr. Steen noted that the AMA supports certain additions to the drug labeling requirements and has drafted a bill that would require certain information to be listed on the drug container dispensed to the patient.

But, he told Kennedy's Health Subcommittee, "it is highly inappropriate to include a requirement that the proposed warning be placed on all drug labels. Moreover, we believe that all drugs should not be required to have patient package inserts. The preparation and distribution of the information to be required in the patient package inserts pose a number of problems. Patients differ in their drug requirements with respect to dose, duration of therapy, and adjunct medication. They also differ in therapeutic response, adverse side effects and toxic reactions. 'Patient package insert' might be helpful to some patients, but might confuse, frighten or even harm other patients."

HEW reorganization.

Much of the autonomy and power of the ten HEW regional offices have been eliminated in a major reorganization by HEW Secretary Joseph Califano.

Powers once vested in the Regional Directors were shifted to HEW headquarters in Washington, D.C., bringing to dust the goal of the Nixon Administration to establish "mini-HEWs" with substantial independence to deal with regional problems. However, the ten offices with tens of thousands of employees across the Nation will stay in business, but with much closer ties to the Nation's Capital.

"In the past," he said, "there has been confusion about the role of the Regional Offices and often considerable discrepancy between the rhetoric that was used to describe their functions and their actual functions. The Regional Offices, on paper, were mini-HEWs and the Regional Director a field secretary with line direction over program operations in the field."

V.A. pay.

The AMA is supporting a bill to increase Veterans Administration physician and dentist pay.

The legislation before the Senate would extend for one year authorization (Pay Comparability Act of 1975) for the Administrator of the Veterans Administration to provide special pay to eligible physicians and dentists. The bill also provides that a physician or dentist who has entered into an agreement with the Veterans Administration which will be completed during the extended authorization period may enter into a new agreement not to exceed four years in duration.

In a letter to the Senate Committee on Veterans Affairs, James H. Sammons, M.D., AMA Executive Vice President said:

"The AMA has been supportive for many years of the federal government's efforts to recruit and retain career-minded health professionals for federal health delivery programs."

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Physicians' Classified

FAMILY PRACTICE OPPORTUNITY — Schuyler, NE., has need for 1 to 2 physicians. Two physicians and 57-bed H.C.A.H. Hospital in town of 4M (trade area 12M). Progressive community, 60 miles from metropolitan cities. Take over existing solo practice or joint partnership. Excellent local economy. Excellent opportunity. Contact: L. Wattier, Administrator, Memorial Hospital, Schuyler, NE (402) 352-2441, or Drs. Fencil & Sucha, Schuyler, NE. 352-2520.

ONE OF LINCOLN'S finest Medical-Dental office buildings has available one large suite suitable for a group or a laboratory. Will redecorate or remodel to suit tenant. Please contact Dick Gaughan, 489-2718 or Dr. T. L. McKee, 489-5440 or call at Business Office, Suite 1600, 5440 South Street.

EXPERIENCED EMERGENCY ROOM PHYSICIAN needed immediately in a modern 208-bed general hospital with complete facilities. Excellent starting salary with four weeks paid vacation and education support benefits for 40-hour week. Pleasant midwestern location with 176,000 population. Contact: Carl I. Maltas, Associate Director, Patient Services, St. Elizabeth Community Health Center, 555 South 70th Street, Lincoln, Nebraska 68510.

EMERGENCY MEDICINE: physician for major suburban hospital. One of five full-time M.D.s. New department. Hospital-based specialists in neonatology, pulmonary disease, pathology, cardiology, radiology and anesthesia. Full partnership after two years. Tax-sheltered annuity available and retirement provided. Existing four M.D.s average age is 34. Joseph R. McCaslin, M.D., Director of Emergency Medicine, Archbishop Bergan Mercy Hospital, Omaha, NE. 68124 (402) 398-6031.

PSYCHIATRIC RESIDENCE: Vacancies for position for January 1, 1978, for those who have a regular Iowa license or can obtain one by reciprocity or via FLEX. Prepare for career in private practice, community clinics or hospital-based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. The stipends are: 1st Year: \$22,360; 2nd Year: \$23,478; 3rd Year: \$24,674. Intensity and diversity of training program appreciated best by personal visit. T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal Opportunity Employer. Call Collect: 712-225-2594.

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days



- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice

- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (Federal Register, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarthritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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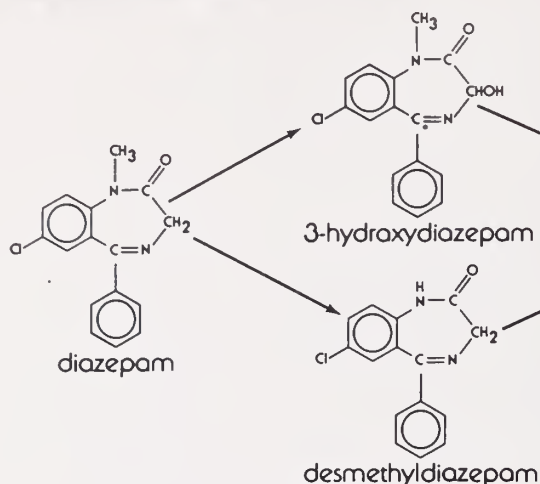
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A pharmacokinetic character all its own



Valium (diazepam) is a benzodiazepine with a distinctive pharmacokinetic profile

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Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due

to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated:

Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma;

may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
3901 So. 27th St., Lincoln 68502

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Each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer), 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer), and 25 mg phenobarbital in the immediate release layer.

SUSTAINED ACTION

Each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine HCl, and 2 mg phenobarbital; the alcohol content is 15%.

See next page for brief summary.



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CAUTION: Federal law prohibits dispensing Tedral SA without prescription.

Description. Tedral: each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital.

Tedral SA: each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer); 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer); 25 mg phenobarbital in the immediate release layer.

Tedral Elixir: each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine hydrochloride, and 2 mg phenobarbital; the alcohol content is 15%.

Indications. Tedral, Tedral SA, and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal or perennial asthma.

Tedral SA (Sustained Action) offers the convenience of b.i.d. dosage.

Tedral Elixir is convenient for persons who may have difficulty in swallowing tablets.

These Tedral formulations are adjuncts in the total management of the asthmatic patient. Acute or severe asthmatic attacks may necessitate supplemental therapy with other drugs by inhalation or other parenteral routes.

Contraindications. Sensitivity to any of the ingredients; porphyria.

Warnings. Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

Precautions. Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

Adverse Reactions. Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

Average Dosage. *Prophylactic or Therapeutic.*

Tedral: *Adults*—One or two tablets every 4 hours. *Children*—(Over 60 lb) one-half the adult dose.

Tedral SA: *Adults*—One tablet on arising and one tablet 12 hours later. Tablets should not be chewed. *Children*—Not established for children under 12.

Tedral Elixir: *Note:* One teaspoonful is equivalent to one-quarter Tedral tablet. *Children*—One teaspoonful per 30 lb body weight, every 4-6 hours, unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution. *Adults*—One to two table-spoonfuls every four hours.

Supplied. Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

Tedral SA: Double-layered, uncoated, coral/mottled white tablets in bottles of 100 (N 0047-0231-51) and 1000 (N 0047-0231-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0231-11).

Tedral Elixir: Dark red and cherry-flavored in 474 ml (16 fl oz) bottles (N 0047-0242-16).

STORE BETWEEN 59° and 86°F (15° and 30°C).

Full information is available on request

Quantitative Evaluation of Vitamin E in Treatment of Angina Pectoris — R. E. Gillilan et al (US Public Health Service Hosp, Baltimore, MD 21211) Am Heart J 93:444-449 (April) 1977.

Because of previous reports of the beneficial effect of vitamin E in angina pectoris, 48 patients, with both stable angina and positive (chest pain plus ischemic ST depression) maximal exercise treadmill tests, participated in a double-blind crossover study of 6 months each of vitamin E and placebo therapy, separated by a 2-month no treatment period. All 48 patients had positive selective coronary arteriograms (75% obstruction of at least a major coronary artery) or Q wave ECG evidence of previous myocardial infarction (Minnesota criteria) or both. Evaluation of drug effectiveness was based on performance of serial maximal exercise treadmill tests, serial systolic time interval measurements, and daily angina diaries. No statistically significant differences between the two treatment periods were found in any of the data studies. A large dose of vitamin E (1600 IU d-alpha-tocopherol succinate daily) for 6 months in patients with stable angina pectoris failed to increase the exercise capacity, improve left ventricular function, or reduce the frequency of chest pain.



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Manuscripts to be presented for publication in the JOURNAL should be typewritten, double-spaced, on one side only of firm (not onion skin or flimsy), standard letter size (8½ by 11 in.) white paper. Wide margins (at least 1¼ in. on left) should be left free of typing. On the first or title-page should be shown the title of the article, the name (or names) of the author, his degree and other significant credits. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Illustrations should be numbered and their locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be black (India ink) on pure white. Photographs should be on glossy paper and a minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

Manuscripts (original, not a carbon) should be sent directly to the Editor at the Journal's address.

Letters to the Editor submitted for publication should be prepared as above, and must carry the notation: To be Published.

Manuscripts not accepted for publication will not be returned to the author.

Reprints should be ordered from the printer, Norfolk Printing Co., Inc., P. O. Box 278, Norfolk, Nebr. 68701.

Improved Oxygenation in Patients With Acute Respiratory Failure: The Prone Position — W. W. Douglas et al (200 First St SW, Rochester, MN 55901) *Am Rev Respir Dis* 115:559-566 (April) 1977.

To assess the potential benefits of the prone position for gas exchange in acute respiratory failure, six patients were turned from supine to prone positions, supporting the upper thorax and pelvis and allowing the abdomen to protrude. Arterial P_{O_2} increased by a mean of 69 mm Hg (range, 2 to 178 mm Hg) at the same tidal volume, same inspired oxygen concentration, and same level of positive end-expiratory pressure. The maneuver made it possible to reduce the inspired oxygen concentration in four of the five patients who required mechanical ventilation of the lungs and to defer intubation in the patient who was breathing spontaneously. After subsequent turns from supine to prone, arterial P_{O_2} increased by a mean of 35 mm Hg (range, 4 to 110 mm Hg), permitting a decrease in inspired oxygen concentration or positive end-expiratory pressure when prone (four patients); arterial P_{O_2} decreased in 12 or 14 instances after the patient was turned from prone to supine. No significant change in mean arterial carbon dioxide tension, respiratory frequency, or effective compliance was observed.

The Genetics of Alzheimer's Disease — L. L. Heston (Univ of Minnesota, Minneapolis, MN 55455) and A. R. Mastri, *Arch Gen Psychiatry* 34:976-981 (Aug) 1977.

Relatives of probands with histologically confirmed Alzheimer's disease has excessive morbidity from Alzheimer's disease, Down's syndrome, and hematologic malignancies. These associations coupled with two previously reported ones, the indistinguishable histopathological changes in the brain in Alzheimer's disease and Down's syndrome, and the 20-fold increased incidence of leukemia among persons with Down's syndrome, are evidence that some instances of those disorders are associated with a unitary genetic etiology. The genetic defect may be expressed through disorganization of microtubules. Other evidence suggests that the same process may be involved in aging and in other chromosomal aberrations.



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Schizophrenia as a Prostaglandin Deficiency Disease — D. Horrobin (Clinical Research Institute, Montreal, Quebec, Canada) *Lancet* 1:936-937 (April 30) 1977.

Evidence that schizophrenia may be a prostaglandin deficiency disease comes from three main sources: (1) all effective antischizophrenic drugs stimulate prolactin secretion and prolactin is a potent stimulator of prostaglandin synthesis; (2) schizophrenics are resistant to pain and inflammation and are free of rheumatoid arthritis and there is increasing evidence that prostaglandins play important roles in pain, inflammation, and rheumatoid arthritis; (3) high doses of drugs recently shown to be prostaglandin antagonists cause schizophrenia-like syndromes. The hypothesis is not inconsistent with current transmitter theories of schizophrenia since prostaglandins modify transmitter secretion and action. It does indicate radically new approaches to investigation, treatment, and drug design not suggested by the transmitter concepts.

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NOTE: See following page for full prescribing information.

AN IMPORTANT NOTE:

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.



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See prescribing information in package insert reproduced below.

	Starting Dosage	Increased Monthly by	Usual Maintenance	Maximal Recommended
Adult Hypercholesterolemic	1.0-2.0 mg.	1.0-2.0 mg.	4.0-8.0 mg.	4.0-8.0 mg.
Pediatric Hypercholesterolemic	0.05 mg./kg. body weight	0.05 mg./kg.	0.1 mg./kg. body weight	4.0 mg.
Hypothyroid Cardiac	1.0 mg.	1.0 mg.	4.0 mg.	4.0 mg.

Choloxin® (Sodium Dextrothyroxine)

Description
CHOLOXIN (sodium dextrothyroxine) is the sodium salt of the dextrorotatory isomer of thyroxine. It is chemically described as D-3,5,3',5'-tetraiodothyronine sodium salt.

Actions
The predominant effect of CHOLOXIN (sodium dextrothyroxine) is the reduction of serum cholesterol levels in hyperlipidemic patients. Beta lipoprotein and triglyceride fractions may also be reduced from previously elevated levels.

Most of the available evidence indicates that CHOLOXIN (sodium dextrothyroxine) stimulates the liver to increase catabolism and excretion of cholesterol and its degradation products via the biliary route into the feces. Cholesterol synthesis is not inhibited and abnormal metabolic end-products do not accumulate in the blood.

Indications
This is not an innocuous drug. Strict attention should be paid to the indications and contraindications.

CHOLOXIN (sodium dextrothyroxine) is an antilipidemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease.

The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication.

Before prescribing, note the following:
Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation. There may be an additive effect. This additive effect may possibly stimulate the myocardium excessively, in patients with significant myocardial impairment. CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly. Careful monitoring of the total effect of both drugs is important.

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Contraindications

The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated:

1. Known organic heart disease, including angina pectoris; history of myocardial infarction; cardiac arrhythmia or tachycardia, either active or in patients with demonstrated propensity for arrhythmias; rheumatic heart disease; history of congestive heart failure; and compensated or borderline compensated cardiac status.
2. Hypertensive states (other than mild, labile systolic hypertension).
3. Advanced liver or kidney disease.
4. Pregnancy.

5. Nursing mothers.
6. History of iodism.

Warnings
CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time. Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment.

In the surgical patient, it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated.

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease, treatment should be initiated with care. Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required. This drug may increase the oxygen requirements of the myocardium, especially at high dosage levels. Treated subjects with coronary artery disease must be seen at frequent intervals. If aggravation of angina or increased myocardial ischemia, cardiac failure, or clinically significant arrhythmia develops during the treatment of hypothyroid patients, the dosage should be reduced or the drug discontinued.

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine). As with all thyroactive drugs, hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients.

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency. This condition may be enhanced in patients receiving thyroid analogues. These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease.

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones, it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation. During emergency surgery in euthyroid patients, and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy, the patients should be carefully observed.

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents. Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs. If sodium dextrothyroxine is later withdrawn from

patients who had required an increase of insulin (or oral hypoglycemic agents) dosage during its administration, the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state.

When either or both impaired liver or kidney function are present, the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results.

Usage in Women of Childbearing Age

Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug; it can be given to those patients exercising strict birth control procedures. Since pregnancy may occur despite the use of birth control procedures, administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother. Teratogenic studies in two animal species have resulted in no abnormalities in the offspring.

Precautions

It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein-bound iodine levels. These increased serum PBI values are evidence of absorption and transport of the drug, and should NOT be interpreted as evidence of hypermetabolism; similarly, they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine). PBI values in the range of 10 to 25 mcg% in treated patients are common.

If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy, the drug should be discontinued.

A few children with familial hypercholesterolemia have been treated with CHOLOXIN for periods of one year or longer with no adverse effects on growth. However, it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol-lowering effect is observed.

Adverse Reactions

The side effects attributed to dextrothyroxine therapy are, for the most part, due to increased metabolism, and may be minimized by following the recommended dosage schedule. Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease; the incidence of adverse effects is increased in hypothyroid patients, and is highest in those patients with organic heart disease superimposed on the hypothyroid state.

In the absence of known organic heart disease, some cardiac changes may be precipitated during sodium dextrothyroxine therapy. In addition to angina pectoris, arrhythmia consisting of extrasystoles, ectopic beats, or supraventricular tachycardia, ECG evidence of ischemic myocardial changes and increase in heart size have been observed. Myocardial infarctions, both fatal and non-fatal, have occurred, but these are not unexpected in untreated patients in the age groups studied. It is not known whether any of these infarcts were drug related.

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia, nervousness, palpitations, tremors, loss of weight, lid lag, sweating, flushing, hyperthermia, hair loss, diuresis, and menstrual irregularities. Gas-

trointestinal complaints during therapy have included dyspepsia, nausea and vomiting, constipation, diarrhea, and decrease in appetite.

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease), hoarseness, tinnitus, dizziness, peripheral edema, malaise, tiredness, visual disturbances, psychic changes, paresthesia, muscle pain, and various bizarre subjective complaints. Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine by some investigators. Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient, although its relationship to CHOLOXIN therapy was not established.

In several instances, the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine); a worsening of peripheral vascular disease, sensory, exophthalmos, and retinopathy have been reported.

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants, such as warfarin or Dicumarol, on prothrombin time, thus indicating a decrease in the dosage requirements of the anticoagulants. On the other hand, dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section).

Dosage and Administration

For adult euthyroid hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day. The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, if that dosage level is indicated to effect the desired lowering of serum cholesterol.

When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication, the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, preferably the lower dosage. The maximum in patients receiving digitalis therapy is 4 mg.

For pediatric hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0.1 mg (100 mcg) per kilogram. The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals. The recommended maximal dose is 4 mg daily, if that dosage is indicated to effect the desired lowering of serum cholesterol.

If new signs or symptoms of cardiac disease develop during the treatment period, the drug should be withdrawn.

How Supplied

CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1, 2, 4, and 6 mg tablets.



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Detection of Bone Metastases in Carcinoma of Bronchus — S. J. Williams et al (Brompton Hosp, London, England) Br Med J 1:1004 (April 16) 1977.

The records of 100 consecutive persons with carcinoma of the bronchus who had bone metastases were examined. All patients had serum alkaline phosphatase, plain radiographs, and bone scans using ^{99m}Tc polyphosphate. The decision that bone metastases were present was based on histologic proof or subsequent clinical course. Alkaline phosphatase was poor at differentiating those with bone metastases from those without, with 68% false negatives. Plain radiographs were positive in less than half the patients with bone metastases and there was little difference in the detection rate with each histological group. Scans detected all bone metastases due to adenocarcinoma, 95% due to squamous cell carcinoma, and only 67% due to oat cell carcinoma.

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Intracranial Responses to PEEP — S. J. Aidinis et al (H. M. Shapiro, VA Hosp, San Diego, CA 92161) *Anesthesiology* 45:275-277 (Sept) 1976.

The results of a study in experimental animals indicate a potential for positive end-expiratory pressure (PEEP) to evoke neurologic complications in patients who have intracranial disease and that the presence of pulmonary disease may attenuate these deleterious side effects. Monitoring of neurologic function as well as blood gas and cardiovascular effects of PEEP in patients who have intracranial disease is suggested.

Successful Replantation of Avulsed Scalp by Microvascular Anastomoses — G. D. H. Miller et al (179 Victoria Parade, Fitzroy, Victoria, Australia) *Plast Reconstr Surg* 58:133-136 (Aug) 1976.

A totally avulsed scalp was replanted by microvascular anastomoses. This was feasible because suitable vessels were available in the superficial temporal region, and because the detached scalp was otherwise largely undamaged.

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Treatment of Excessive Weight Gain in Patients Taking Lithium — G. M. Dempsey et al (New York State Psychiatric Institute, New York, NY 10032) *Am J Psychiatry* 133:1082-1084 (Sept) 1976.

Six female primary affective disorder patients who had gained an average of 9.5 kg while taking lithium lost an average of 2.9 kg on a 10-day 900 calorie a day hospital diet containing 100 mEq of sodium per day. No evidence of lithium toxicity was observed on this regimen. There was no evidence that fluid retention played a major role in the weight gain.

Experience With Subcutaneous Mastectomy — J. E. Woods et al (Mayo Clinic and Mayo Foundation, Rochester, MN 55901) *Surgery* 80:422-425 (Oct) 1976.

A review of 67 patients who had undergone subcutaneous mastectomy indicates that the procedure should be used with well-defined criteria. Both the patient and the surgeon should understand clearly that the procedure does not afford absolute protection against breast cancer.

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is

affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



When choosing a diuretic for day-in-day-out hypertension control with comfortable compliance...

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Zaroxolyn offers all three.

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Long-acting **Zaroxolyn**[®] (metolazone) Pennwalt 2½ mg, 5 mg and 10 mg tablets once-daily antihypertensive diuretic

Recommended initial dosage in mild to moderate essential hypertension—2½ to 5 mg once daily

Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease. **Contraindications:** Anuria, hepatic coma or precoma, allergy or hypersensitivity to Zaroxolyn. Or, as a routine in otherwise healthy pregnant women. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is a particular hazard in digitalized patients; dangerous or fatal arrhythmias may occur. Hyponatremia and hyperuricemia may be noted or precipitated. Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced. Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing age requires that potential benefits be weighed

against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur in edematous patients in hot weather. **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth, hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyper-

glycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg. Dosage adjustment may be necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg

References:

1. Dornfeld L, Kane R: Metolazone in essential hypertension. The long-term clinical efficacy of a new diuretic. *Curr Ther Res* 18:527-533, 1975.
2. Cangiano JL: Effects of prolonged administration of metolazone in the treatment of essential hypertension. *Curr Ther Res* 20:745-750, 1976.
3. Data on file: Medical Department, Pennwalt Prescription Products.

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MILITANTS VEXED AT PRIVACY.

Wanted Movies of Ceremony,
But Both Factions Are

WASHINGTON, Aug. 24, 1920—
The struggle for wom-



TRUMAN CLOSES UNITED NATIONS CONFERENCE WITH PLEA TO TRANSLATE CHARTER INTO DEEDS

NEW WORLD HOPE

President Hails 'Great
Instrument of Peace,'
Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing
Ovation as Executive
Pictures Peace Gain

Social Security Bill Is Signed; Gives Pensions to Aged, Job

Roosevelt Approves Message Intended to Benefit 30,000,000
Persons When States Adopt Cooperating Laws—He Calls
the Measure 'Cornerstone' of His Economic Program

SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution
is Sent to House, Where
Passage is Expected

WASHINGTON, March 10,
1971—The Senate approved
today 94 to 0 and sent to

WASHINGTON, Aug. 14
The Social Security Bill, part
a broad program of unemployment
insurance and old age pensions
and counted upon to benefit
20,000,000 persons, became law
today when it was signed by
President Roosevelt in the presence
of those chiefly responsible for
bringing it through Congress.

Mr. Roosevelt called the bill
"the cornerstone of my economic
program which is being built on
men's complete cooperation."

the Draft Ends No

WASHINGTON, Jan. 27,
1973—"With the signing of
the peace agreement in
Paris today, and after re-
ceiving a report from the

"If we fail to use it," he declared
to the solemn final meeting of the
delegates, "we shall betray all of
those who have died in order that
we might meet here in freedom and
safety to create it."

"If we seek to use it selfishly—for
the advantage of any one nation or
any small group of nations—we
shall be equally guilty of that be-
trayal."

Pervent Interpolation

The President, speaking in the
auditorium of the War Memorial
Opera House, built in memory of
sons of the Golden Gate city who
gave their lives in the first World
War, in which he himself served,
seemed to give unconscious expres-
sion to the solemn feeling of the
occasion when, at the outset of his
speech, he interpolated the words,
half a hope, half a prayer:
"Oh, what a great day this can
be in history!"

Just before the plenary session

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy—and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information

is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA

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THE NEBRASKA MEDICAL JOURNAL

THE SECOND OPINION

I drove my car to a garage advertised as a diagnostic center, which is a sort of a second opinion, only the second opinion comes first. The idea was that they tell you what needs to be done, but they have no further financial interest in you, since they do not do the repair. I was astonished when they told me that the diagnostic examination would cost much more than what we had agreed on, and that they would, after all, do the repairing.

About a week ago, I visited my dentist, and he said that I would need to come in three times for nerve blocks and some kind of pounding; no second opinion; I came. About a year ago, I consulted with my lawyer and did what he advised; no second opinion. A plumber came over one day; I had a leak or a flood; he told me what had to be done and he did it; no second opinion.

Second opinions may be at least theoretically advisable, but nobody is scolding the lawyer or the plumber or the carpenter or the dentist or the mechanic, so I suggest that if they are necessary, tell the lawyer and the dentist, too. And if they are not that necessary, trust your friendly physician.

—F.C.

MY OWN WALKATHON

I have walked around the circle where I live, ringing doorbells and meeting people and encouraging them to contribute to the financing of medical research; I think I was once even a March of Dimes den mother. I do not know how much illness I managed to stamp out, but I learned all about the generosity of my neighbors, and I felt good.

Some diseases are less attractive than others, I suppose; I think I was in heart disease and poliomyelitis and birth defects. But I might have said to my doorbell answerers, Hello, I'm collecting for gonorrhea.

We gave at the office.

—F.C.

THE EMPTY OPERATING ROOM

The operating room looks strange at midnight; the hustle of surgery, the hushed voices, the seriousness of life-saving procedures, all are replaced by perfect quiet. Operate on Sunday is the obvious solution to what may not really be a problem. You might operate at four o'clock in the afternoon, too. Then there is the football stadium, unused while the team is away. And the law courts bring in no revenue at night.

Weekends bring slowdowns everywhere, and operating afternoons and on Sunday may be what we need and it may not. There are the empty schools all summer and just think of the unused churches all week long.

Operating at five PM and on Sunday is fine if you like it; and if you do not, the empty operating theater in the middle of the night is not disturbing. You have to rest sometime, and the seventh day seems all right; it was suggested so long ago.

—F.C.

A DEFENSE OF BIG WORDS

If this is a turnaround, it shows I have an open mind. Only yesterday, I was decrying the use of big unjustified words, like saying cyanotic for blue and rubor for red. But I have changed my mind. Heartburn is pyrosis, and pharyngitis may be only a sore throat, and erythematous means red. But if the patient says my throat is red, what good does it do to say your throat is red? If you diagnose pharyngitis, he will feel better, and so will you. If he can only whisper, tell him he has laryngitis, and he will understand.

For if he is to get any good out of his office visit, he must be impressed. The placebo effect is there and it is of very great importance, and confidence in his doctor is, too.

If the lady's pulse is irregular, tell her she is suffering from arrhythmia; if her ankle is hurting, it is arthralgia or neuralgia. The orthopods have a good thing going when

they speak learnedly of internal derangement of the knee.

I will say erythematous now, and edema instead of swelling. It is all for the patient's good, you understand.

—F.C.

THE DOCTOR AND THE UNIVERSE

The physical world is said to be flying apart, so that the distance between everything is getting bigger. All doctors specialize, our fields get smaller, and we grow more and more distant from our colleagues. Think of the surgeon. He used to do everything, but we all called ourselves physicians and surgeons. Then orthopedic surgery came along, and urology, and brain surgeons appeared, and the chest cutters arrived, and

the surgeon now called himself a general surgeon and operated on the abdominal cavity and the skin and the thyroid.

And like galaxies and stars, we fly apart from our friends in the profession; we do not talk each other's language. MS means musculoskeletal to one, mitral stenosis to another, and manuscript to me. At staff meetings, the ophthalmologist must listen to the gynecologist, and the psychiatrist hears the urologist discuss nephrectomy.

Perhaps all knowledge is useful. I do not comment, save to show that we may grow apart as we want to stay together, but the changes in the physical universe are relative, and it may be that the more change there is, the less change there really is.

—F.C.

Computerized Tomography of the Head

— Part I

Abstract

Computerized tomography (CT) of the head is a new, safe, accurate, noninvasive neuroradiologic procedure which is being used in the screening, evaluation, management, and in the follow-up of intracranial central nervous system disease. CT of the head provides a unique visualization of neuroanatomy and an extent of specific diagnostic information not previously available with little or no discomfort or hazard to the patient. With CT, primary and secondary neuropathologic events can be visualized directly by alterations in anatomic form and/or variation in tissue density (absorption coefficient), under physiologic conditions.

INTRODUCTION

COMPUTERIZED tomography (CT) of the head is a new, safe, noninvasive neuroradiologic procedure developed by Godfrey N. Hounsfield which produces a series of high resolution pictures of slices of the head. It is currently being used both in the screening, evaluation, management, and in the follow-up of patients with intracranial central nervous system disease and to exclude structural lesions. Because CT is easy to mobilize in clinical practice, provides a simple method of obtaining a great quantity of high quality information during a single study, demonstrates the extent and localization of the disease process with speed and lack of ambiguity; and lacks the discomfort, morbidity, and mortality associated with the invasive neuroradiologic procedures such as arteriography and pneumoencephalography, it is frequently the initial and often the only neuroradiologic screening, diagnostic, and localizing procedure, performed and is often the neuroradiologic screening procedure of choice for both inpatients and outpatients.

CT demonstrates an extent of intracranial neuroanatomy and neuropathology not previously possible with conventional neuroradiologic procedures such as the skull x-ray

JOHN F. AITA, M.D.

which only provides information about the bony calvarium, the arteriogram which only provides information about blood vessels or effects upon them, and the pneumoencephalogram (PEG) which only provides information about the cerebrospinal fluid (CSF) pathways and effects upon them.

CT provides accurate resolution of objects as small as 6mm in size¹; more recent instrumentation has been shown to have an experimentally calculated true spatial resolution of 1.5mm.² A recent review provides statistical proof of a very frequent observation — that CT demonstrates calcification, in this case, of the pineal gland and of the choroid plexus that are simply too faint for visualization with the conventional skull radiograph.³

The radiation exposure to the cranium for a complete series of CT scans varies between 0.6-2.5 R according to Perry and Bridges, and McCullough et al, and Hounsfield, whereas the exposure from a single skull x-ray ranges from 1.0-2.5 R and that accumulated from arteriography may exceed 10 R.^{1, 4, 5} New et al have found that at 120 kv the calculated integral patient dose per scan is $\frac{1}{3}$ that received during a single lateral skull x-ray at 80kv, 60 mAs.⁶ Thus, CT radiation exposures are comparable to those of other diagnostic neuroradiologic procedures.¹ It should be remembered that with CT only the plane under investigation is exposed to the primary source of radiation, whereas with a conventional skull x-ray or other neuroradiologic procedures, the entire head is exposed to the primary source of radiation.

The interpretation of the head CT scan, which can be displayed numerically by a line printer, on a cathode ray oscilloscope or on Polaroid film, is based on a knowledge of normal neuroanatomic structures and on a series of tissue densities (Figure 1) which are

either greater than or less than the brain tissue density. Those structures which are denser than the brain tissue show up as various shades of white, while those which are less dense show up as darker than the surrounding brain. The head CT scans, which are taken at c° -25 $^{\circ}$ to the orbitomeatal line are viewed as though one is looking down on top of the patient with the patient's left on the viewer's left and his right on the right.

Figure 1 demonstrates the absorption of anatomic materials or tissue densities, and shows that gray matter is denser (whiter) than white matter; this is secondary to the richer gray matter blood supply and the higher myelin (composed of lipids) content of the white matter, while the density of bone exceeds that of blood which in turn is denser than cerebrospinal fluid (CSF) — water. Special features of the CT apparatus allow one to determine the actual density of normal anatomic or pathologic structures and, thereby, determine if the "white" structure represents, for instance, blood or perhaps calcium, or the low density area is a cyst or edema.

A structure's density may often be artificially increased or enhanced following the antecubital intravenous injection of an iodinated contrast compound such as Conray, Renografin, or Hypaque. The enhancement is a result of the great vascularity of the structure being enhanced and in certain pathologic structures such as tumors is the result of a breakdown in the blood-brain-

barrier with extravascular, intracellular pooling of the contrast material.^{7,8}

Neuroanatomy

One identifies normal anatomical structures, their position, size, and shape. One is able to see clearly the low density of the CSF within the cisterna ambiens (Figure 2-C), right and left lateral ventricles (Figure 2-C), and the third ventricle (Figure 2-C); and the low density of air within mastoid air cells (Figure 2-A).

The high density of the skull (Figures 2, 3,4), anterior (Figure 2-B) and posterior (Figure 2-B) clinoids, petrous pyramids (Figure 2-B), roof of the orbit (Figure 2-B), pineal gland (Figure 4-A, B), and calcification of the choroid plexus (Figure 4-B, C) within the lateral ventricles are easily visualized. By using these normal anatomic landmarks, one is then able to locate the position of the cerebellum (Figure 2-A), brainstem (Figure 2-A), pituitary fossa (Figure 2-B between the anterior and posterior clinoids), thalamus (Figure 2-B, head of the caudate nucleus (Figure 2-D), internal capsule (Figure 2-D), lenticular nuclei (putamen and globus pallidus) (Figure 2-D); occipital (Figure 3-B), temporal (Figure 3-A), frontal (Figure 3-A), and parietal (Figure 3-C, 3-D) lobes; and cortex. By using special "cuts" of the intracranial contents, one is able to demonstrate the eye and optic nerve (Figure 2-A).

Using the special technique of contrast enhancement one is frequently able to visualize normal vascular structures, such as

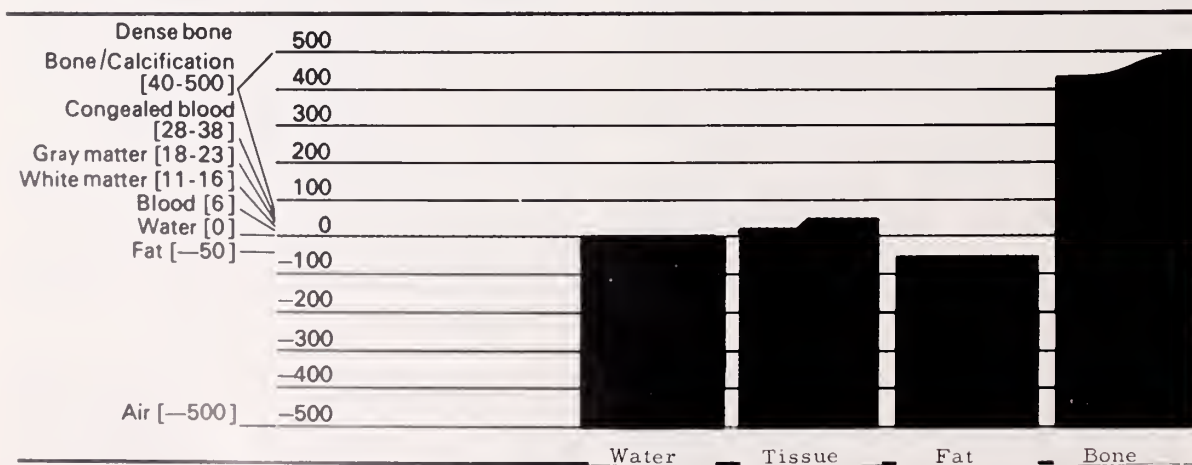


Figure 1
Absorption of anatomic materials or tissue densities. Reprinted by permission of EMI Limited.

the circle of Willis and its major branches (Figure 4-D), and the choroid plexus of the lateral ventricles.

Neuropathology

The neuropathology of the intracranial

central nervous system can be accurately assessed by CT of the head, and will be dealt with in detail in subsequent articles. Neuropathologic processes are identified by a primary change in the normal anatomic

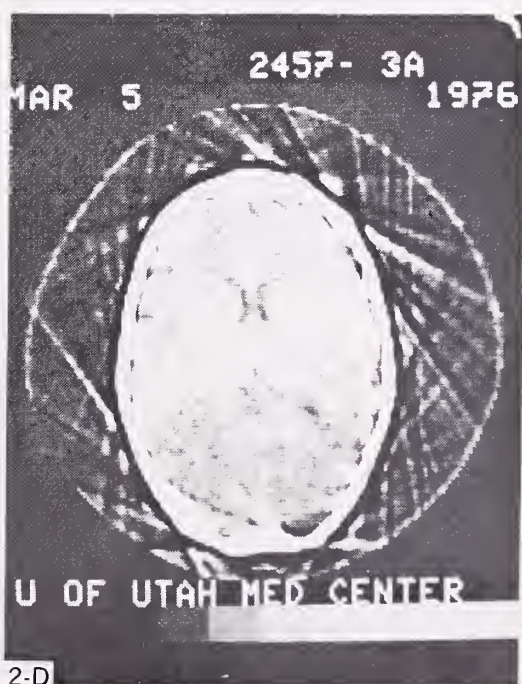
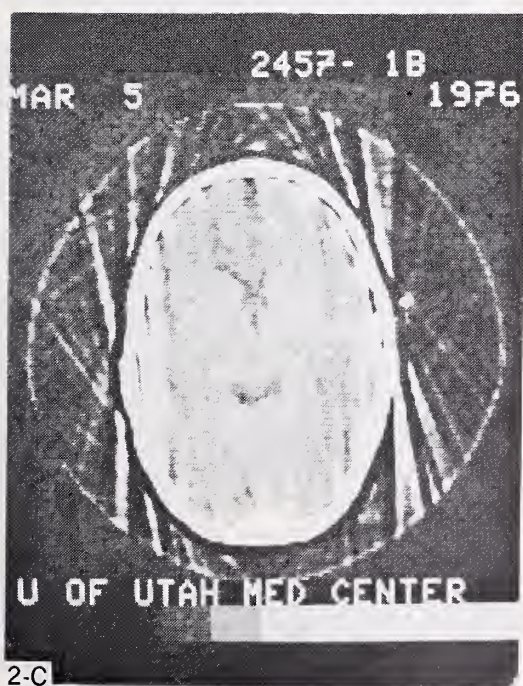
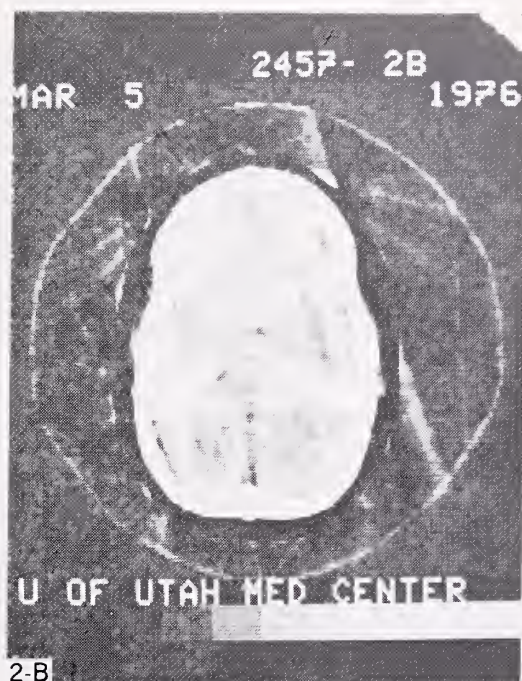
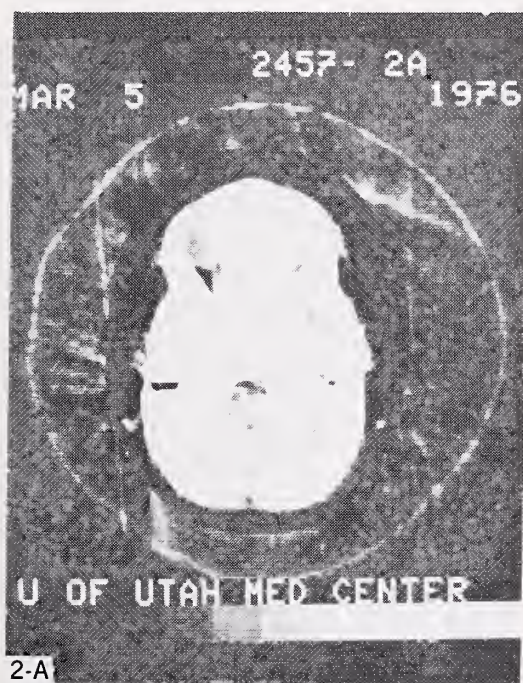


Figure 2

Normal anatomy — A) Left eye and optic nerve, brainstem, cerebellum and air in the left mastoid. B) Pituitary fossa between anterior and posterior clinoids, roof of right orbit, and petrous pyramid. C) Right and left lateral ventricles, third ventricle, cisterna ambiens, and thalamus. D) Head of caudate nucleus, internal capsule, lentiform nuclei (globus pallidus and putamen).

structure, such as hemispheric asymmetry or density difference, or by secondary structural displacement, mass effect, or change in the normal anatomic pattern. A mass effect may manifest itself by structural displacement of the pineal gland, choroid plexus or

the ventricular system and occasionally with obstruction of the internal CSF pathways. The changes in density may either be higher than or lower than the normal brain anatomy (Figure 1). Examples of high density abnormalities would include fresh hemorrhage,

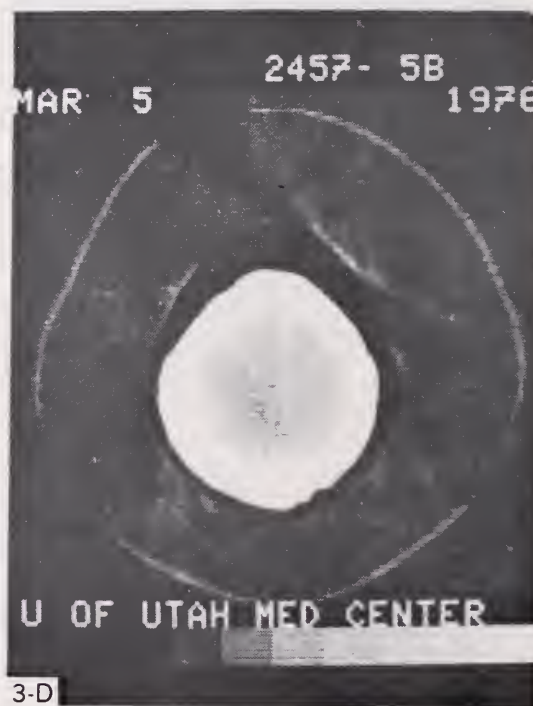
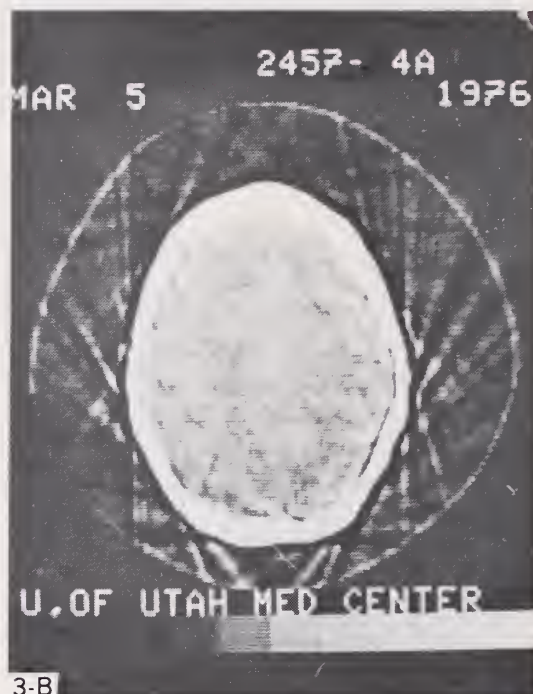
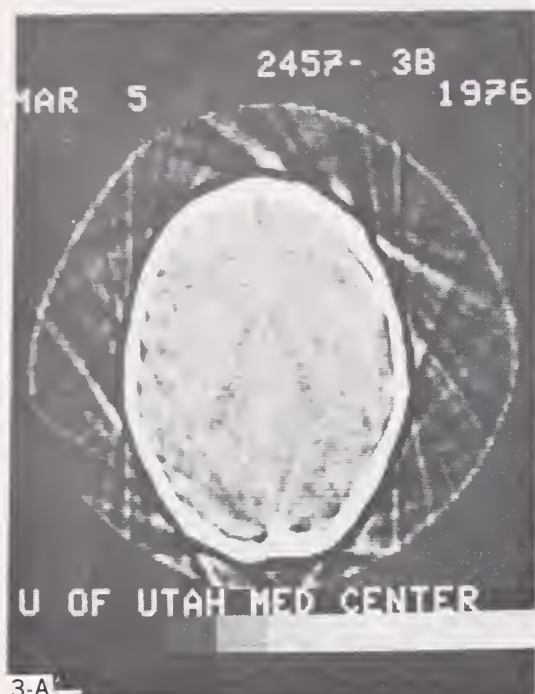


Figure 3
Normal anatomy — A) Frontal and temporal lobes and cortex. B) Occipital lobe and cortex. C) Skull, parietal lobe and cortex. D) Parietal lobe and cortex.

metallic objects, calcification, and some slow growing tumors. Low density lesions include edema, infarction, necrosis, cyst formation, hydrocephalus, gyral atrophy, contusion, lipid, air, demyelination, subdural hygroma, and old hemorrhage.

Occasionally, a lesion is so small or its density approximates that of the surrounding parenchyma so closely that no density difference can be detected visually. Such lesions, for example edema or necrosis, can be detected only by a mass effect, if any is

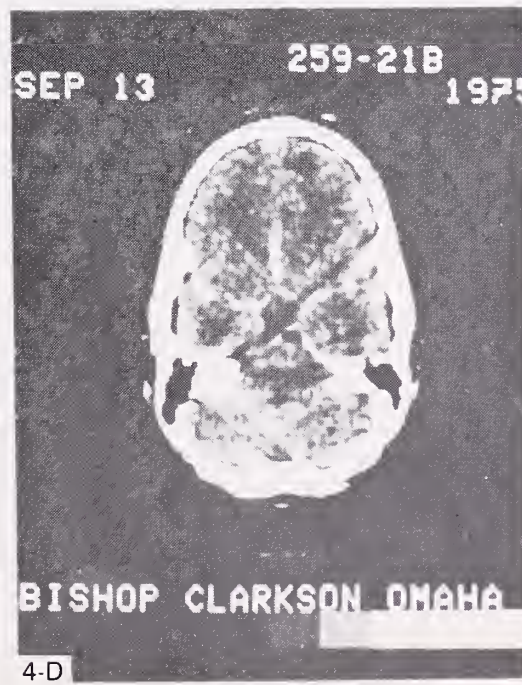
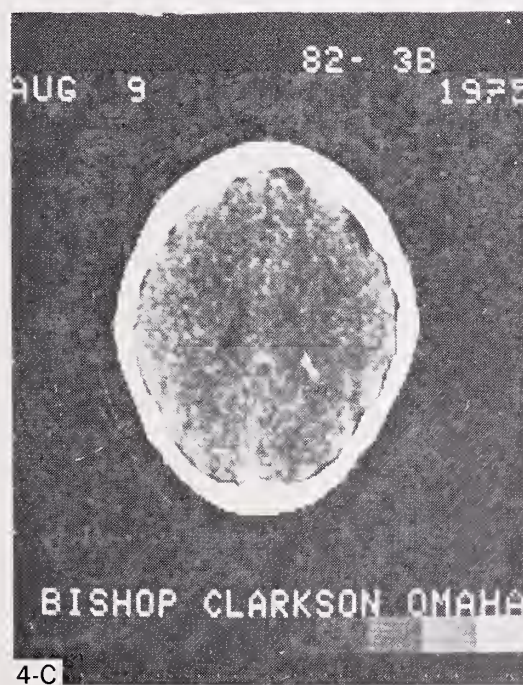
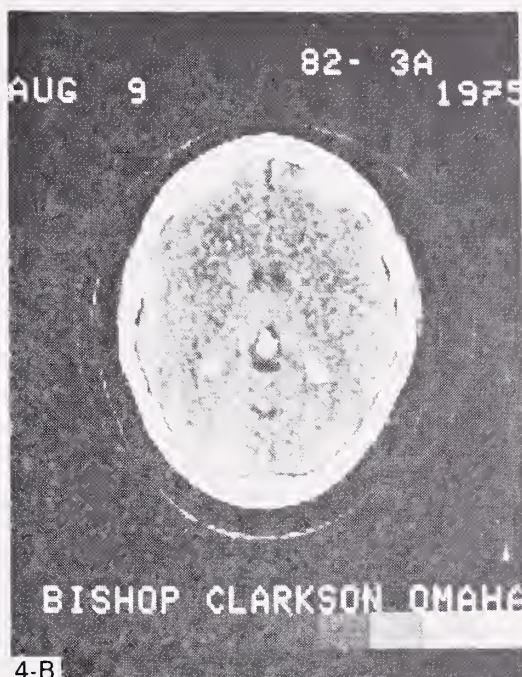
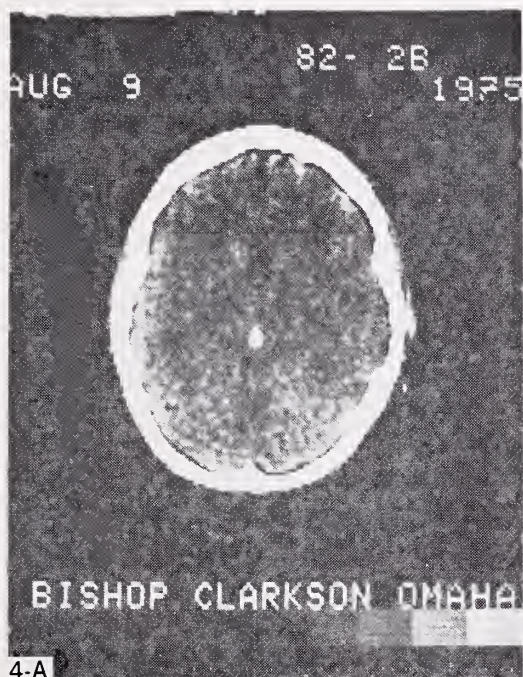


Figure 4

Normal anatomy — A) Calcified pineal gland. B) Calcified pineal gland and choroid plexus within lateral ventricles. C) Choroid plexus calcification and skull. D) Circle of Willis is seen as a "star" following contrast enhancement.

present, or with the use of contrast enhancement (CE) to artificially raise the density of the abnormal tissue. The use of CE is of great aid in the delineation and diagnosis of both primary and secondary (eg. edema, hemorrhage, necrosis, cyst formation) neuropathologic processes. CE, by revealing abnormal vasculature and neovascularization and the breakdown in the blood-brain-barrier with pooling of the iodinated compound in the extravascular-intracellular spaces,⁷ will demonstrate the affected tissue, its boundaries and the contribution of edema, which can actually be seen, or necrosis. The enhancement is independent of the lesion's density and results in a measurable increase in the absorption values of well vascularized lesions.^{6, 7, 8} CE increases the accuracy of CT in localizing and diagnosing brain tumor, but not cell type, abscess and occasionally infarction.^{7,9-13}

Reported side effects of CE are transient and include a sensation of warmth, nausea or vomiting, a metallic taste, urticaria, bronchospasm, hives, rhinorrhea, sneezing, coughing, and throat discomfort.^{7, 10}

Examples of the CT display of neuropathology including primary and metastatic brain tumors, cerebrovascular disease (infarction and hemorrhage), and brain atrophy (hydrocephalus ex vacuo and enlarged sulci) will be provided in subsequent parts of this continuing series on CT of the head.

In a later issue, the physical workings of the head CT unit will be discussed.

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We Got It All Out

A friend once remarked that a local surgeon was so aggressive that when some of his patients came to autopsy the only report the pathologist could give was tissue insufficient for diagnosis. Consequently, the surgeon could give a valid report to the patient and his family that *he got it all out*.

In some instances it seems improbable that the surgeon is able to determine with certainty the complete removal of malignancy. This uncertainty is not necessarily related to the skill of the surgeon, but rather to the limitations of human senses. A colony of tumor cells of 0.00001 gm contains about 10,000 cells. Only a few cells, possibly one cell, is adequate to clone and thus establish a viable metastatic tumor. A group of cancer cells one millimeter in diameter contains about 1,000,000 cells.¹ Is it likely that a colony of this size could be detected in a combined abdominal-perineal resection of an adenocarcinoma of the rectum?

How valid is a report from the pathologist that the axillary contents are free of cancer? Saphir² and Pickren³ reported results of meticulous examination of axillary specimens already reported on routine examination as being free of cancer. These "negative" axillary contents actually were infected with cancer in 22 to 33 percent of the patients. Micrometastases of breast cancer can usually be killed with 5000 rads, but large recurrent masses require doses of 7000 - 8000 rads which may cause distressing morbidity.

It is possible that adjuvant chemotherapy might kill metastases in the axilla, supraclavicular area or internal mammary nodes, but irradiation therapy can eliminate these colonies.¹⁹

After apparent complete removal of cancers of the rectosigmoid region local recurrences arise in up to 30 percent of patients depending on size and location of the primary tumor.^{4,5} Postoperative irradiation can significantly reduce this recurrence rate.⁶

The local recurrence rate after simple

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excision of soft tissue sarcomas in adults is greater than 80 percent.^{7,8} Simple excision of the sarcomas plus postoperative irradiation controls 82 percent of lesions of the extremities.⁹

Postoperative radiation therapy improves the local and regional control of high-grade, aggressive malignant parotid tumors.¹⁰

Elective neck radiation has been used by a number of investigators in an attempt to sterilize lymph nodes with subclinical metastases. Whenever the primary cancer in the upper gastrointestinal or respiratory tract has been controlled the prospective radiation is almost completely effective in preventing subsequent clinical metastases.¹¹⁻¹⁷

One of the prime roles of irradiation therapy is to destroy small nests of cancer cells after surgical removal of the bulk tumor. The larger the mass of cancer cells the greater the dose of irradiation required to kill the cancer cells.¹⁸ Therefore, irradiation is most effective in killing residual tumor if given soon after the surgical removal of the bulk disease.

Summary

Eradication of cancer by surgery can only be reported in terms of what the surgeon can see and feel. He cannot see or feel microscopic deposits of cancer. The pathologist may or may not find small colonies of cancer cells when he examines samples of a resected specimen. Consideration should be given to preoperative or postoperative adjuvant therapy in all patients who receive surgical treatment for cancer.

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From Gas Tube to Cat Scanner During Sixty Years

WHILE in high school at Winthrop, New York in 1917, Dr. Cornelius Buck, a 90 year old

country doctor retained me as his horse and buggy attendant. Occasionally Dr. Buck would reminisce about some of the astonishing developments in medical science during his 70 years in practice. Admittedly, he had been slow to comprehend Pasteur's thesis of the germ agency in sepsis and contagious diseases in the 1870s and reluctant to accept the tubercle bacillus as the cause of consumption when so reported by Koch in 1882. He enthused about the transformation of surgery from a frightful ordeal of pain and sepsis with a 50% mortality into the then most curative and rewarding of the healing arts with the introduction of anesthesia and control of infection. The old doctor had relatively few drugs — opium, digitalis, iron, bromides, iodides, and salicylates and, of course, he had no medications for control of the then number one killers — pneumonia, tuberculosis, and other infectious diseases. Dr. Buck's account of an invisible ray described by Roentgen in 1895 as capable of penetrating the human body and recording bodily structures on a photographic plate was most intriguing to me and may have influenced my choice of a career some years later.

My program as a graduate student at the University of California and at Harvard Medical School had been oriented toward an academic career in medical physiology. However, radiology appealed to me as combining the basics of physiology, anatomy and pathology with clinical practice. After a residency and instructorship at the University of Michigan, I came to the University of Nebraska in 1930 as Chairman of Radiology and Physical Medicine and to the Nebraska Methodist Hospital as radiologist. These dual appointments continued from 1930 through 1963. In Nebraska the world-wide depression of the thirties was compounded by the severe drought of the dust bowl era. Corn

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was ten cents a bushel, but Nebraskans had little or no corn, mostly dust.

The Methodist Hospital X-ray Department total gross income during my first twelve months, 1930-31, was \$9,541.85. My meager but welcome compensation was based on a percent of net income, only a fraction of the gross figure. In 1930 the per diem hospital charge in the men's ward was then \$4.00 and the charge for infants was \$1.00 per diem. By 1933 the hospital was eleven months in arrears in its grocery bill. In 1934 we installed a deep x-ray therapy unit which I financed with a bank loan. In 1939 I bought Dr. Overgaard's complete x-ray and office equipment (including two antique gas x-ray tubes) for \$750 and moved the more useful items to the Methodist Hospital. Comparably competitive office x-ray equipment today would cost about \$100,000 (\$75,000 for the basic equipment and \$25,000 for gadgets to meet federal regulations). In 1934 my deep x-ray therapy unit had cost \$4,800, whereas, a current 18 MEV therapeutic linear accelerator costs about \$480,000 being in the same general price range as the computerized axial tomographic scanner for diagnostic radiology. Since 1930, there has been a twenty to hundred fold escalation in costs of personnel, plant and equipment resulting in part from inflation, but due primarily to the highly sophisticated and costly technology and skills which provide more effective tools and services for precise delivery of concentrated radiation to deep cancer and likewise for clearer diagnostic portrayal of detailed anatomy and physiology than was conceivable only a few years ago. Are we approaching a plateau in medical technology restricted by the economics of diminishing returns and the imposition of bureaucratic controls?

The University of Nebraska in 1930 had

about 200 ward beds and 20 bassinets, always filled by indigent patients. No private pay patients were admissible until the enabling act was amended in about 1964 to allow for admission of Medicare patients. All clinical instruction of medical students and house officers and the supervisory care of in-hospital and clinic patients was provided gratis by unpaid faculty members through 1945, except for one full-time obstetrician and one pediatrician funded by the Maternal Child Health Program beginning in 1940. Following World War II, full time chiefs were first appointed in Medicine and in Surgery. Appointment of other full-time faculty followed and rapidly accelerated in the early 1960s due to pressure from the accrediting boards and to the availability of funds from the State and Federal Government and new income generated by pay patients. In 1930, there were 12 rotating interns and a resident in Radiology serving the clinics as well as the 220 inpatients. In 1977 there are a total of 317 beds at the University Hospital. At present there are 275 house officers (including 14 in Radiology), about 135 full-time clinical medical faculty members on campus and about 400 unpaid volunteers listed as faculty and preceptors serving the College of Medicine by teaching at the Methodist, Clarkson, and other affiliated hospitals. In 1930, there were about 260 medical students and about 60 students in the School of Nursing. In 1977 there are 476 medical students, 329 in the College of Nursing, 235 registered in the Graduate College, 220 in the College of Pharmacy and 167 in the School of Allied Health Professions, (23 being in radiologic technology).

In 1930 administrative officers and staff serving the University of Nebraska College of Medicine and Hospital consisted only of Dean Poynter, Hospital Administrator Bean, Nursing Director Miss Burgess, and Superintendent of Buildings, Grounds and Personnel Saxon, assisted by a total of six secretaries, a cashier, and a bookkeeper. In 1977 administrative officers, excluding the newly arrived College of Pharmacy, comprise the chancellor of the Medical Center, two deans, nine associate and assistant deans, a registrar, ten program directors in the School of Allied Health Professions, twelve other directors, an executive director of finance, three hospital administrators and innumerable assistants, secretaries, clerks, and computer programmers. Extension of facilities at the University of Nebraska Medical Center in buildings, equipment, personnel, and diversity of programs has been fantastic over the past 10 to 15 years. University medical centers generally have a promising future being in the vanguard of new developments and in step with the burgeoning role of government in health care and medical services. Acceptance of these services by the public, however, may be impaired in some cases by a seemingly perfunctory, rather than a personalized patient-doctor relationship.

Happily after 60 years, I am back again with the country doctors, radiologist to the Memorial Community Hospital, medical staff, and patients at Blair, Nebraska, stimulated by the challenge of diagnostic problems and supported by the grace of my colleagues and associates.

The Myelodysplasia and Hydrocephalus Program in Nebraska: A 15 Year Review of Costs and Benefits*

Part I

IN these days of cost accountability and estimates of the potential expenses of comprehensive health care, it would seem appropriate to look at the cost, in terms of both dollars and familial social involvement, and at the overall results of the myelodysplasia-hydrocephalus program in Nebraska.

Since 1962, 222 children have been treated through the Birth Defects Program at Children's Memorial Hospital and the Myelodysplasia Clinic at the University of Nebraska Medical Center with supplementary care provided by the orthopedic services of the Nebraska Services for Crippled Children (SCC). An estimated 3.7 million dollars has been expended with funding provided by parents and private insurance, by the SCC, Children's Memorial Hospital, the National Foundation of the March of Dimes and the Easter Seal Society, plus a multitude of services provided by a dedicated group of volunteers in addition to the medical-professional personnel.†

Tabulation was made of the current status of 222 children as of 1975-76, supplemented by telephone and mail reports from all children who had left the program or moved out of the area. Analysis is here presented of the medical-social costs and outcome, and of the reliability of the prognostic indices employed in the initial evaluation of an infant with hydrocephalus-myelodysplasia.

Subjects, 1962-1975

Over 13 years, 222 children entered the program: 144 with myelodysplasia (M) and 78 with primary hydrocephalus or encephalocele (H). This is a referral rate of 0.7/1,000 births.¹ The mean annual incidence rate for spina bifida, hydrocephalus and encephalocele in Nebraska, 1970-1973 was 1/1,000² indicating a 70% referral rate. This

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was an unselected series and all referred children were accepted for treatment. Figure 1 is a map showing the maternal residence at the time of birth. Although the incidence of referred cases (per 1,000 live births according to maternal residence) from Franklin, Hall, and Jefferson counties was over three times the statewide average, no statistical significance can be inferred. Of infants referred for treatment, 11% were referred from southwest Iowa and another 11% from Kansas, Missouri, and Colorado or had moved into the area after the neonatal period.

The racial and ethnic background of these children reflects the genetic frequency of neural tube anomalies. In the myelodysplasia group 93% were white, 6% Spanish American or other, and less than 1% were black, although 5% of Nebraska infants are black. Since there is a higher incidence of neural tube anomalies among the Irish and Welsh,³ ethnicity was evaluated on the basis of maternal surname, and 14% were considered to be of Irish descent. Although this is higher than the 2.3% frequency of Irish among Nebraskans of first or second

*From the Alina Knipprath Memorial Birth Defects Clinic, Children's Memorial Hospital; Department of Pediatrics and Meyer Children's Rehabilitation Institute, University of Nebraska Medical Center, Omaha, Nebraska.

†The birth defects team has had many members but varsity status on the basis of years of service in the medical specialties would seem to belong to Genetics: James Eisen, Ph.D. and Terry Myers, M.D., Ph.D.; Neurology: Steven Dutch, M.D., Richard Pellegrino, M.D.; Neurosurgery: Bradley Berman, M.D. and Kenneth Browne, M.D.; Orthopedics: Stanley Bach, M.D.; Urology: Francis Bartone, M.D. and Hal K. Mardis, M.D.; Pediatrics: Carol R. Angle, M.D., Anthony J. Lombardo, M.D., Theodore Pfundt, M.D., and Jack Trembath, M.B., B.Ch. Social Services have been provided by the late Alina Knipprath, M.S.W., Deloryce Eledge, Gary Peterson, M.S.W., and Louise Lohr, M.S.W. This investigation was supported by the Birth Defects Prevention Program, Nebraska State Department of Health, in cooperation with Children's Memorial Hospital.

Costs

For the entire group of 222 children, 174 (78%) were hospitalized at Children's Memorial Hospital for a mean of 68 days; 67 were hospitalized at the University of Nebraska Medical Center for a mean of 90 days. The average duration of hospitalization was 129 days with an average of 6.3 operative procedures. Based on the cost of hospital days and surgical procedures in 1977 for all 222 plus the costs for an average of four annual clinic visits, including laboratory and

There was an overall mortality rate of 20% (45 subjects); 25% for the myelodysplasia group (M group) and 14% for the hydrocephalus group (H group). Figure 2 shows the current geographic distribution of the 177 surviving children (95 M and 62 H).

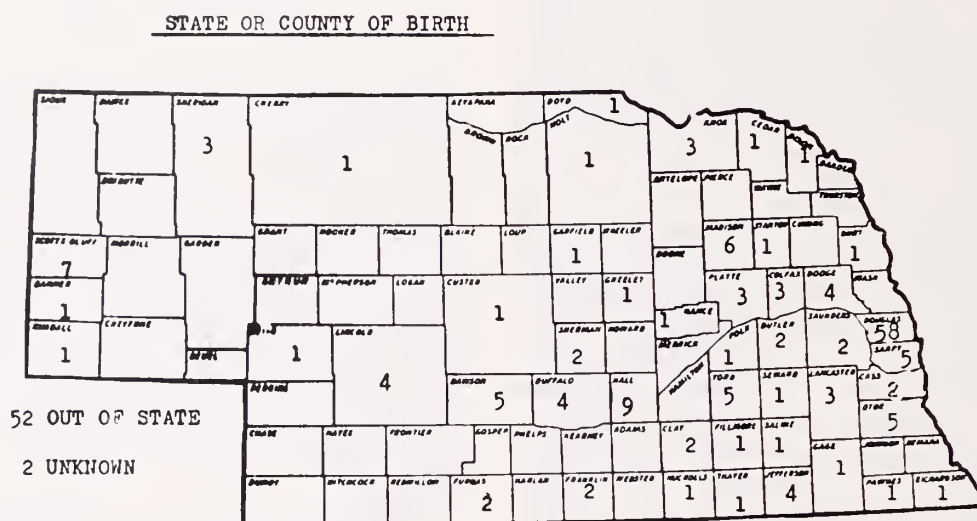


Figure 1

County of maternal residence at the time of birth of 222 children referred for treatment by the Nebraska Myelodysplasia-Hydrocephalus Program.

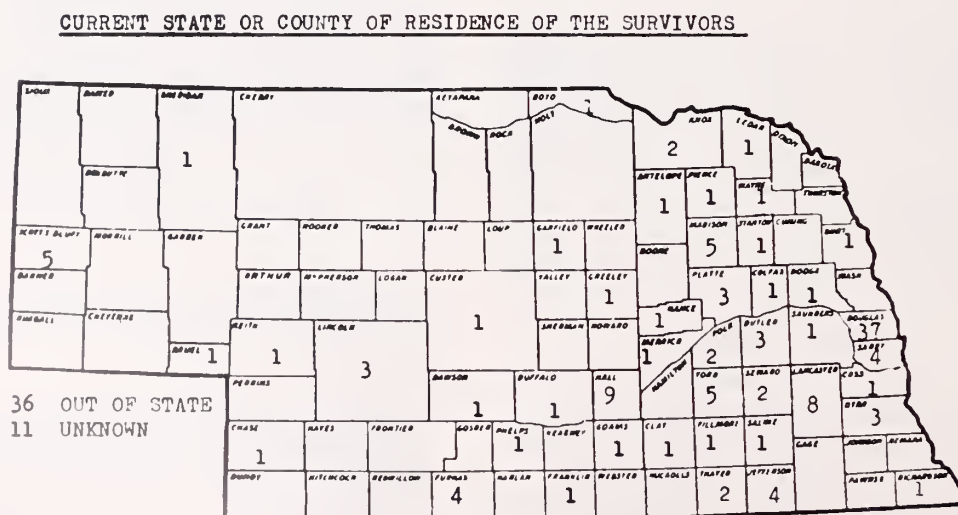


Figure 2

Current county of residence of 177 surviving children, 95 with myelomeningocele and 62 with primary hydrocephalus.

x-ray studies for the 80% of children surviving, the average medical cost for these children through age 8 is estimated at \$21,140 exclusive of the costs of braces and outpatient medicines. A minimum medical expenditure of 3.7 million dollars can be made for the group of 222 children. Adding the estimated cost of 26 years of institutionalization for 9 children at \$22,265/year⁵ and of foster care of \$2,200/year⁶ for 12 children (7%), the 15 year costs can be estimated at \$4.5 million.

Socio-Familial Costs

Costs in terms of overt familial stability, in contrast to the monetary costs, were surprisingly low. Of the 177 families of surviving children, 7% had relinquished their children to foster care and another 6% had been divorced; in effect, gross disruption occurred in 13% of families. The divorce rate of 6% for families intact at the time of the birth is significantly ($p < .001$, chi-square)

lower than the adjusted 1968⁷ divorce rate of 16% (crude rate of 20% x 0.8, since 80% divorces occur in the first 15 years). The incidence of institutionalization, 3% of M and 18% of H, is considered an index of severity of retardation and of early referral patterns rather than rejection of the child by the family.

Table 1

Medical Costs (1977 Dollars)

129 days hospitalization at \$100	\$ 12,900
6.3 operations at \$800	5,040
Outpatient care at \$400/yr x 8 yrs.	3,200
	\$ 21,140

Total Costs 1962-1977

Medical Care (222 neonates; 177 survivors) ..	\$3,741,780
Institutionalization, 9 children	
\$22,265/year x 26 yrs at Beatrice	578,890
Foster care, 12 children	
\$2200/yr x 8 yrs per child	211,200
TOTAL	\$4,531,870

Loneliness and The Rural Female Adolescent *

ONE may experience loneliness at any age, yet adolescence may be a period of life in which the developments expose the adolescent to a greater degree of loneliness than encountered during any other period throughout life. Adolescence, a transition from childhood to adulthood, precipitates stress and change in the life of a young individual.

Rubin⁷ contends that feelings of loneliness are strongest during the times of stress or status change. Frenkel-Brunswick also associate loneliness and adolescence.

Various educators and psychologists as Erikson,⁴ Chilman,¹ Kenniston,⁶ and Wagner¹¹ describe the period of adolescence as one of insecurity and seeking for an identity.

The insecurity experienced during a period of stress and uncertainty, the need for a sense of self-esteem, self-identity and intimacy may make the adolescent particularly

vulnerable to loneliness. On the contrary, if the environment in which the adolescent is able to develop a sense of self-esteem, identity, and intimacy remains relatively free of confusion and trouble, the adolescent will experience loneliness only to a minimal degree.

Female Loneliness

It has been indicated in the literature and cited in various studies that females, especially of adolescence age and during early

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Des Plaines, Ill.

youth. experience loneliness to a higher degree than males.

Duvall³ studied the fiancées and wives of servicemen during wartime separation. Of all the problems indicated, loneliness received the most frequent mention.

Seever⁸ found that female college freshmen had significantly higher mean loneliness scores than did males. However, Swanson¹⁰ and Zabel¹³ found no significant difference for the respondents' sex in the respective populations studied (never-married young adults and the divorced), while Woodward¹² reported elderly females were significantly more lonely than elderly males.

The theoretical basis which supports the finding of differences in loneliness with respect to sex among adolescents involves the concepts of independence training, intimacy, identity and self-esteem.

In order to determine if adolescent females experienced loneliness to a higher degree than males of adolescent age, loneliness scores among freshman and senior high school students, with respect to male and female status, was considered in the research.

Sample and Procedure

Included in the study were 219 freshman students and 172 senior students from four selected rural Nebraska high schools, located in towns within a fifty-mile radius from Lincoln, Nebraska and with populations ranging from 1,500 to 2,500. The total sample included 55% males along with 45% females, in the age range of 14-18 years.

Students answered a questionnaire consisting of: 1) the Personal Information Questionnaire, adapted from the Solitude-Loneliness Questionnaire, College Student Form, Seever⁸, with the exception of three questions designed specifically for a high school student sample. 2) Loneliness Inventory, developed under the direction of J. Woodward, for a University of Nebraska study entitled "Loneliness and Solitude: Phenomena, Incidence and Factorial Relationships." Questions included items designed to measure loneliness in the general population and also items specifically developed for the high school student.

The responses to the loneliness questions were indicated on a five-point scale. The sum total of responses being divided by the number of questions to determine the individual's mean loneliness score. Students were instructed to leave blank those items involving situations they had never experienced.

Validity and Reliability

Validity of the Loneliness Inventory was determined after a comprehensive review of the literature and consideration of the responses of University of Nebraska students to an open-ended questionnaire. Furthermore, the mean loneliness scores of the respondents were analyzed with respect to the adaptation of the Self-Rating Scale by Sisenwein.⁹ Results indicated significance at the accepted levels. Using the split halves reliability test, the correlation coefficient was found to be 0.96.

Hypothesis

Loneliness scores among freshman and senior, male and female, high school students was considered and stated —

There is a significant difference in loneliness scores between the categories of male and female.

To test the difference of the loneliness scores, a one-way analysis of variance was utilized. For loneliness scores among the freshman class males and females, the *F* value was 6.14, found to be significant at the .01 level. With respect to the senior class males and females, the *F* value, significant at the .001 level, was 15.73. Thus for both freshmen and seniors the hypothesis that there is a significant difference in loneliness scores between the categories of male and female students was accepted. Female students did receive significantly higher mean loneliness scores than males at both the freshman and senior level. Senior females were found to have the highest mean loneliness score of the four subgroups.

Discussion of Results

Data analysis results revealed the mean loneliness scores to vary significantly with the sex of the respondent. In both classes female students had significantly higher mean loneliness scores than did males.

Senior class females in the sample had higher mean loneliness scores than did freshman females. Moreover, senior high school females have received the highest mean loneliness score of all groups researched for an extensive loneliness study conducted within the University.

It is felt that for the female, at this transition point in her life, decisions may be particularly difficult. For the senior high school girl, graduation is near and it becomes more crucial for her to make future plans. As discussed earlier, this period of uncertainty may result in loneliness.

Hauck⁵ states that girls are initiated early into a system of dependency upon others, while boys are encouraged to be independent and self-sufficient. She cites the finding of Keller and Rowley that by junior high age, the anxiety of girls is significantly higher than that of boys. Hauck contends that this indicates the increasing dependency of girls upon social approval.

Douvan and Adelson² point out that adolescent girls indicated their greatest feelings of self esteem came through acceptance by others and gratifying interpersonal relationships. In contrast, boys reported their greatest feelings came from personal achievement.

The world of work does not provide the same function of identity formation for girls as for boys, according to Douvan and Adelson. The authors found that girls' plans for education and work were not characterized by long-range or permanent commitments to a special skill; their main goals were that of wife and mother.

Social relationships and intimacy, it appears, often determine a girl's identity. According to Erikson's stages of psychosocial development⁴ the resolution of the identity v. identity diffusion crisis is a necessary accomplishment before the complete resolution of the intimacy v. isolation crisis. One's identity needs to be established before the complete sense of intimacy can be attained.

Difficulties arise when the young girl feels a basic need for establishing an identity and a sense of intimacy simultaneously. Loneliness may be one resultant experience.

Conclusions

The high school adolescent girl whether a freshman or senior member may express more feelings of loneliness than her male counterpart due to her dependency upon others for social approval, for a sense of identity and for the establishment of close inter-personal relationships. It is also possible that the cultural expectations and socialization process of adolescent males is such that feelings of loneliness can be more effectively dealt with or perhaps even ignored to the extent that loneliness is not consciously experienced.

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Down Memory Lane

1. The importance of determining the etiology of the pneumonias is not realized by the average physician.

2. We have changed this so that every child is a medical case, no matter if he comes in for a broken leg.

3. Pneumonias do remarkably well with well regulated doses of whiskey. I use it with all of mine, and think it is one of the best drugs we have.

4. In Nebraska towns having a population below 2,000 there are listed by the American Medical Association over forty having hospitals (six to ten beds) under the ownership or patronage of local doctors, not one of whom is a member of the American College of Surgeons, or Physicians.

5. The number of new graduates in medicine in the United States this year is 4035.

6. Clinical and experimental observations seem to indicate that milk and carbohydrates, particularly those forms of the latter which are easily assimilated, should con-

stitute the major portion of the diet in cardiac failure.

7. The automobile supplanting the horse, the rural telephone supplanting the mounted messenger boy of yore, the good roads movement, have produced a complete revolution in the method of bringing together patient and doctor in rural communities. Twenty years ago, a family living ten miles from town and doctor, having a baby seized with an alarming case of croup, put a boy on a horse and sent him for the doctor. The ride to the physician's office took 1½ hours. Another 1½ hours was consumed before the doctor with horse and buggy reached the bedside. Nowadays it takes less than three minutes to call the doctor by phone and in another thirty minutes the doctor is at the bedside.

8. Chadron has voted \$35,000 municipal bonds for a city hospital. What Chadron has done other cities ought to be able to do.

Nebraska State Medical Journal
October, 1927

President's Page

THE WAY TO GO

Now that the legislature malpractice bill is declared constitutional are you confused about the coverage? In outline form, I will try to explain the way to go.

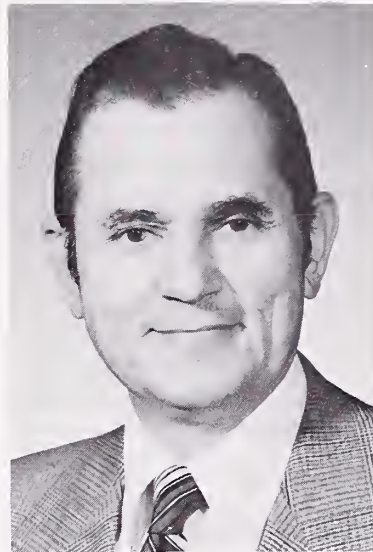
1. Go bare.
2. Go basic with \$100,000-\$300,000.
3. Go basic with \$100,000-\$300,000 and add coverage obtainable thru State of Nebraska Insurance Commissioner.
4. Go basic with \$100,000-\$300,000 and add state coverage and if that is not enough get a third policy for those patients who tell you they will not come under the state law.

No one can tell you which way to go but the four options listed above are the main ways to go. I will explain each briefly.

1. Go bare — that is without any malpractice insurance at all. If you are never going to be sued, it is the cheapest way to go, but risky.

2. Go basic with the standard \$100,000-\$300,000 which is the most popular basic policy. This can be purchased from the company of your choice.

3. If you want to expand your coverage to the state legal limit under the law which is \$500,000, buy a standard \$100,000-\$300,000 policy from your favorite company and then apply for that additional coverage from the state insurance commissioner by sending him proof you have the basic coverage (this can be by certificate or photostat of your policy and premium paid) and one-half the cost of your basic policy. This should give you all the coverage you should need.



4. However, if you will be taking care of people who write to the insurance commissioner in Lincoln and tell him and also you that they refuse to come under the law, (of course, you can refuse to take care of them as well) you can talk to your regular malpractice insurance agent and most likely he will be able to cover you on these up to \$1,000,000 for about 25% more than your basic policy if you take out plan 3.

Number three, however, would seem to be the way to go as it puts you in full compliance with the law and gives both you and your patients insurance coverage benefits you've never had before. Regret space does not allow for the details but check them out and convince yourself the way to go.

Arnold Lempka, M.D.



The Auxiliary

"The Grandfather's Column"

Marge Stapleton Olney (Mrs. Richard, Lincoln) once blurted out to her father, "I wish you were a plumber instead of a doctor!" She said this upon learning he couldn't accompany the family on vacation (again).

Her father, Dr. Harvey Burr Stapleton of Hickman, was the only physician in lower Lancaster County at the time. Rarely could he get away, although he always made plans to be away "one week in August." That was his dream. When it wasn't possible he comforted his family and put them on the train so at least they had a vacation.

Harvey was born in Shelby, Missouri. He attended Peru College for 2 years, then taught school at Dunbar and Springfield. He continued his schooling at Creighton, entered Creighton Medical School and graduated in 1917. He went right into the army and was sent to Ft. Riley, Kansas.

While at St. Joe's Hospital he fell in love with a very pretty nurse. They were married at Ft. Riley in 1918, just as the flu epidemic broke out. They were unable to leave the Fort and never got a honeymoon. Shortly thereafter he was sent to France.

After the war the Stapletons settled in Hickman. Mrs. Stapleton worked as the office nurse until the children arrived.

There was no drug store in Hickman so Dr. Stapleton practically had to have a drug store at his office and carry one with him on house calls.

House calls were made after school hours

and after supper. This was so his daughters could drive him. Marge was navigating his car on muddy farm trails by the time she was 14. This way her Dad napped and got some rest between calls. His office was open by 6 in the morning and Monday, Wednesday, and Saturday nights until 10.

Ice cream was Dr. Stapleton's weakness. He would pick some up on his way home late at night and wake the girls up so they could all have ice cream together. One hot summer all Marge remembers is being awakened to eat cold ice cream.

Dr. Stapleton also entered into community life. He was an active Mason, Legionnaire, president of the Hickman School Board, serving on it for 20 years.

Marge graduated from Hickman High School and UNL. She majored in education and taught school at Ulysses.

She met Dick Olney when they were undergraduates. They were married while Dick attended Creighton. Marge then taught at Papillion. They lived in Omaha for 9 years. They have 4 boys.

Marge is a steady worker in auxiliary. She has been county and state Legislative Chairman and is currently on the Health Gallery Committee. She is past-president of the Building Assn. Board for her sorority and of her P.E.O. chapter. For fun she plays duplicate bridge.

Marge, the doctor's daughter summed up the influence of her father with this reflection: "My father always had a smile for everyone. He was interested in life. I don't think he ever had a dull moment because he was always in the middle of things." Marge, too, always has a smile, a gentle way about her. Long ago she learned to overcome the frustrations of living in a doctor's family.

Mrs. Robert K. Jones
Lancaster County Auxiliary



Helen L. Hayes, (Mrs. O. R.)
State Chairman, Health Galleries
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P.O. Box 30186
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Make check payable to:
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(Continued on next page)

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The Letter Box

Dear Doctor Cole:

What a marvelous writer you are! It is a grave sin of omission that I have not long ago written to tell you my immense pleasure in reading them. They stick in my mind, usually with chuckles and always with appreciation for your insight and humanity.

And how splendid, that Sandoz pinned a blue ribbon on you! Eminently deserved. I heartily second the motion. And VIRGINIA MEDICAL, which won first in the over-3,000 category, is proud to be placed in your company.

I hope to publish in an early issue some pictures of state medical journal covers, with a bit of text. Would you be so kind as to send me a recent issue unsullied by mailing label? I would very much appreciate it. And, although your "We're the best" cover line was a stroke of genius, I would like to photograph a "pure" cover, if you will be so good as to acquiesce.

My best wishes to you across the miles. Long ago and far away, as a child, I lived in Lincoln, and so I have mental images of you going about its streets. Such a great, airy place, Nebraska — with a great editor named Frank Cole!

Cordially,
Ann Gray
Managing Editor
VIRGINIA MEDICAL

To the Editor:

The Omaha Mid-West Clinical Society reports that its meeting scheduled at the Omaha Hilton Hotel, Monday through Thursday, October 31, November 1, 2 and 3, 1977, will have several outstanding attractions including over 25 scientific exhibits and 16 guest lecturers, as well as 42 technical exhibits.

The program scheduled for Monday, October 31, will feature PRESSOR MECHANISMS IN HYPERTENSION AND THEIR UNDERSTANDING FOR TREATMENT," "Controversies in Hypertension" and "Dia-

betes, Pregnancy and Parturition: A Bermuda Triangle?"; THYROID NEOPLASMA INCLUDING RELATION TO HEAD AND NECK RADIATION," "Diagnostic Approach to Selected Thyroid Disorders;" "CURRENT TREATMENT OF SEVERE BURN INJURY," "Fluid Volume and Electrolyte Changes in the Early Postburn Period" and "Metabolic Change and Nutrition of the Seriously Burned Patient;" "OCULAR MANIFESTATIONS OF THYROID DISEASE" and "Office Management of Uveitis;" "Topical Therapeutics in Common Dermatoses;" "Contraceptive Complications;" "Computerized Axial Tomography — 1977" and "Sex in Pregnancy." The noon luncheon features Col. John D. Craig (Ret.) "ADVENTURES IN MEXICO'S GOLDEN SEA OF CORTEZ."

Tuesday program features DIABETES MELLITUS: THE OLD AND NEW IN DIAGNOSIS AND MANAGEMENT," "Complications of Diabetes" and "Management of Diabetes in Obstetrics & Ophthalmology;" "SEXUALITY ISSUES DURING ADOLESCENCE," "School and College Health Problems" and "Evaluation of Pubertal Growth and Development;" "INTENSIVE CARE OF THE CRITICALLY ILL PATIENT," "Medical Care of the Surgical Patient - Renal Aspects" and "Post-Operative Delirium States;" "CHANGING DIRECTIONS IN THE TREATMENT OF VESICO-URETERAL REFLUX — BACK TO CONSERVATISM?"; and "Genito-Urinary Cancer — Are We Aggressive Enough?"; "The Thyroid Today;" "Current Developments in Pulmonary Medicine;" "The Care and Feeding of the Dizzy Patient." The noon luncheon features "Meet The Professor" with 15 different topics.

Wednesday features include "MODERN DAY MANAGEMENT OF THE BREECH PRESENTATIONS," "Toxemia: Assessment of Placental Function" and "Laparoscopic Complications;" "PROBLEMS IN THE PHYSICIAN'S OWN FAMILY," "Premarital Counseling — Something Doctors Should Do More & Better" and "Quick and Easy Ways to Help A Marriage;" "BLOOD LOSS-

COMPLICATIONS, ESTIMATION AND PREVENTION;" "Polycythemic States, Differential Diagnosis" and "Platelet Functional Disorders in Clinical Medicine;" "THE USE OF ASPIRIN FOR PREVENTION OF PATHOLOGICAL THROMBOSES;" "THE DIABETIC FOOT" and "EARLY TREATMENT OF HAND INJURIES;" two "HOW TO SUTURE" sessions. Luncheon features STORY MUSGRAVE, M.D., NASA ASTRO-NAUT, "THE OPPORTUNITIES AND REQUIREMENTS FOR BIOMEDICAL RESEARCH AND APPLICATIONS IN SPACE, 1980-2000."

Thursday features a special symposium on "NUTRITIONAL SUPPORT OF HOSPITALIZED PATIENTS" with "Basics of Clinical Nutrition" — Protein and Energy Requirements and Electrolyte and Other Micronutrient Requirements; "Nutritional Assessment" — Diagnosis of the Disease Malnutrition; "General Principles of Specialized Nutritional Support" — Protein Sparing, Parenteral Hyperalimentation, Enteral

Hyperalimentation and a panel discussion. "Specific Role of the Team Members" — The Nurse, The Pharmacist, and Dietician. "New Solutions and Techniques" — Intravenous Fat. Renal, Hepatic, Cardiac Failure — a panel discussion and Problem-Solving Workshop. This Thursday program is for doctors, nurses, pharmacists and others on the health team.

The annual Creighton Alumni Dinner will be Sunday evening, October 30, and the Nebraska Alumni will have a Cocktail Party and Reception on Monday evening, October 31, both events scheduled at the Hilton Hotel.

I hope as many members of our Medical Society as possible will attend. For further information, contact the Omaha Mid-West Clinical Society, 540 Medical Arts Building, Ms. Lorraine Seibel, Executive Secretary, Omaha, Nebraska 68102.

Sincerely yours,
ROBERT L. GRISSOM, M.D.
President



Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

Most Widely Prescribed—Antivert is the most widely prescribed agent for the management of vertigo* associated with seas affecting the vestibular system such as Menière's disease, byrinitis, and vestibular neuronitis.

Relief of Nausea and Vomiting—Antivert/25 can relieve the ausea and vomiting often associated with vertigo*.

Dosage for Vertigo*—The usual adult dosage for Antivert/25 one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

INDICATIONS Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg/kg/day in rabbits and 10 mg/kg/day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG 
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert[®]/25 
(meclizine HCl) 25 mg. Tablets
for vertigo*

TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE **DYAZIDE®**

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

MAKES SENSE

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

Warning

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Indications: When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids).

Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+ . Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis.

'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions:

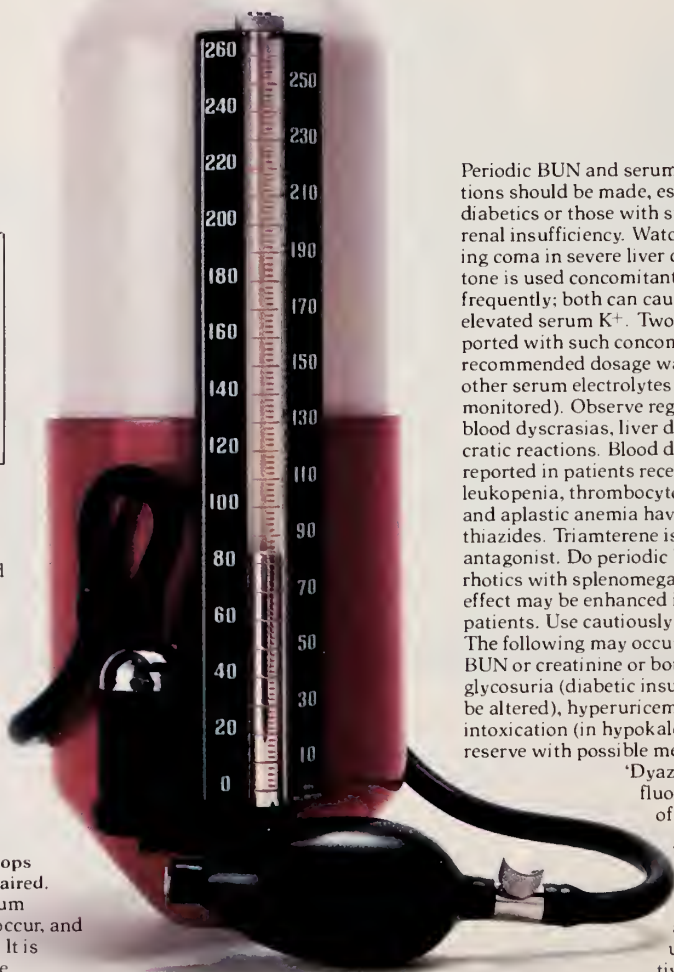
Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

**FOR LONG-TERM CONTROL
OF HYPERTENSION*
SERUM K^+ AND BUN SHOULD
BE CHECKED PERIODICALLY.
(SEE WARNINGS SECTION.)**

SK&F CO., Carolina, P.R. 00630

SK&F CO.
a SmithKline company



Our Medical Schools

Fifth annual mid-west conference on chest diseases:

November 17 and 18, 1977 at the Omaha Hilton.

The sessions are being held in conjunction with the annual meetings of the Cardiopulmonary Technologists Society of Nebraska and the Nebraska Thoracic Society.

There will be general sessions and three simultaneous sections for physicians, cardiopulmonary technologists and nurse-respiratory therapists.

Nebraska Thoracic Society, November 17, 1977 at 7:30 p.m., will be Dr. Irving J. Selikoff, director of Environmental Science Laboratories, New York, New York, whose topic will be Polybrominated Biphenyl Experience — A Lingering Tragedy in Michigan.

Registration fee is \$60 for physicians, \$25 for non-physicians, and \$15 for students.

The program is acceptable for 12 prescribed hours by the American Academy of Family Physicians.

U of N: get-togethers.

Student Research Forum Friday, November 11, 1977; no cost.

Featured speaker will be Dr. Hubert Ritter, president of the AMA Educational Research Foundation.

The forum will consist of morning and afternoon sessions with 15 minute presentations by Medical Center students with five minutes devoted to questions and discussions.

The First Two Years of Life and Early Identification of Developmental Disabilities: Thursday and Friday, December 1 and 2, 1977.

The course is sponsored by the Meyer Children's Rehabilitation Institute and the Medical Center's Center for Continuing Education.

The registration fee of \$70 for physicians and \$50 for other health professionals includes lunches, coffee, and other amenities.

Family practice review, February 13-14 and April 10-21, 1978.

This course is the last opportunity for practicing physicians to review for the American Board of Family Practice examination, which will be given August 26 and 27, 1978.

The course meets the criteria for 100 hours of credit in category I for the Physician's Recognition Award of the American Medical Association and is also acceptable for 100 prescribed hours by the American Academy of Family Physicians.

The fee for this course is \$575 and covers breakfasts, lunches, banquet, bus transportation, notes and other amenities.



Anesthesiology department established.

A Department of Anesthesiology has been established by the Creighton University School of Medicine and Saint Joseph Hospital.

Appointed as Chairman of Creighton's Department of Anesthesiology is John L. Gordon, M.D. Dr. Gordon is a 1959 graduate of the Creighton medical school and joined the medical faculty as associate professor of surgery in May, 1977.

Between Cases

The Diagnosis.

Death.

The Prognosis.

The patient will predictably be disabled soon.

Words I Can Do Without.

That's neither here nor there, preventative, familization, whole ball of wax.

On Specific Findings.

Nonspecificwise; bypassable lesion.

On Erythema.

Definition: redness of the skin produced by congestion of the capillaries.

Means: red skin.

My Favorite Q & A Columns.

It is difficult to give simple answers.

Just answer the question.

Words I Don't Believe I Heard, But I Did.

He was re-enterated.

Quote Unquote.

If you don't go to your friends' funerals, they won't go to yours.

Anon.

Aha!

Pasteur refused to shake hands.

The Px.

Examination of this patient's abdomen showed him to have gynecomastia and inspiratory rales.

That's Us.

Physicians are in general the most amiable companions and the best friends, as well as the most learned men I know.

Alexander Pope

Postgraduate Gems.

Every psychoneurotic dies of organic disease.

Anon.

O To Be In England.

Ten minutes for everyone.

Lancet.

Definition.

Expert: seldom in doubt but frequently in error.

Cole's Law.

The longer the report, the less it says.

The Diagnosis.

Has external otitis media.

Quote Unquote.

Don't call the doctor after the funeral.

Japanese proverb.

—F.C.

Books



General ophthalmology; by Daniel Vaughan, M.D. and Taylor Asbury, M.D.; 379 pages; limp cover \$12.00; published 1977 by Lange Medical Publications, Los Altos, California.

This book is now in its 8th edition; it first appeared in 1958, and a new edition comes out every three years now; it is also printed in four other languages. It is divided into 26 chapters, has four appendixes and an index, and contains a list of abbreviations (fc is defined as footcandles, but I think it stands for finger counting, too) and symbols, as well as a vocabulary of terms relating to the eye.

There are figures and pictures and references; the printing is good; the illustrations are black-and-white, but they are fine. The book is recommended; there is a section on CT Scan, too.

—F.C.

Review of medical physiology; by William F. Ganong, M.D.; eighth edition; 599 pages; limp cover \$12.50; published 1977 by Lange Medical Publications, Los Altos, California.

This book first appeared in 1963 and comes out in a new edition every two years. It has now been translated into 10 other languages, and is to appear in four more. Dr. Ganong is Professor of Physiology and Chairman of the Department of Physiology at the

University of California School of Medicine at San Francisco.

The book is divided into eight chapters, and contains an appendix, an index, tables, figures, and a good list of abbreviations and symbols. The print is good, and there are a few unnumbered references.

It is recommended.

—F.C.

Current surgical diagnosis & treatment; by J. Englebert Dunphy, M.D., Lawrence W. Way, M.D., and 77 associate authors; 1139 pages; limp cover \$18.00; published 1977 by Lange Medical Publications, Los Altos, California.

CSD&T is now in its third edition, having first appeared in 1973. It is divided into 51 chapters, has an index and an appendix, and displays many figures; there are a few unnumbered references.

The print is good and makes for easy reading. There are sections on pediatric surgery, ophthalmology, urologic surgery, transplantation, otolaryngology, orthopedics, plastic surgery, gynecological surgery, legal medicine, and neurosurgery, all of which makes it a very good book to have.

Recommended.

—F.C.

Books received.

Income redistribution; edited by Colin D. Campbell; 267 pages; paperback \$4.75; cloth \$9.75; published 1977 by American Enterprise for Public Policy Research, Washington, D.C.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —

- October 8 — Ainsworth, Elementary Grade School
- October 29 — Alliance, Central School Building
- November 5 — Hartington, Trinity Lutheran Church

COLONOSCOPY TRAINING PROGRAM —

The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have

had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

NEBRASKA CONFERENCE ON COMPREHENSIVE HEALTH EDUCATION —

October 18, 19 & 20, 1977, Nebraska Center for Continuing Education, University of Nebraska Campus. Sponsors: Nebraska Inter-Agency Health Council, Health Systems Agencies, Health Planning Division of the State Department of Health.

LAKE SHARPE GOOSE CLUB — Medical seminar; The cardiovascular patient;

Pierre, S.D.; Kings Inn; Oct. 20-21, 1977.
Write to: Great Lakes Association, P.O.
Box 786, Pierre, S.D.

45TH ANNUAL POSTGRADUATE ASSEMBLY, Omaha Mid-West Clinical Society; Omaha Hilton Hotel; October 31, November 1 and 2, 1977. For information contact: Janet S. Noll, Executive Secretary, Omaha Mid-West Clinical Society, 540 Medical Arts Building — 402-345/7146, Omaha, Nebraska 68102.

AMERICAN MEDICAL ASSOCIATION — Interim Session, House of Delegates, December 4-7, 1977, Palmer House, Chicago, Illinois.

NEBRASKA OBSTETRIC GYNECOLOGIC SOCIETY (NOGS) — Annual Scientific

Session; Frontier Hotel, Las Vegas, Nevada; December 8-11, 1977. Write to: Dr. Dennis Beavers, Secretary-Treasurer, 8552 Cass Street, Omaha, Nebraska 68114.

AMERICAN MEDICAL ASSOCIATION — Winter Scientific Program, December 10-13, 1977, Miami, Florida.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — April 30 - May 3, 1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 17-22, 1978, St. Louis, Missouri.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 21-23, 1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

Welcome New Members

William R. Marsh, M.D.
West Nebraska General Hospital
Scottsbluff, Nebraska 69361

WashingtonNotes

National health insurance.

Congress was moving to wrap up work on as much health legislation as possible in preparation for the gathering storm over national health insurance (NHI) in 1978.

The administration was putting strong pressures on senators and representatives to move quickly on President Carter's proposal for a cap on allowable hospital revenue increases, insisting that the cost containment plan was a prerequisite for NHI.

Despite the sense of urgency imparted by the administration, it appeared that jurisdictional problems, a cooling-off by organized labor on the plan, and stiff opposition from hospital and physician groups would serve to carry the issue over until next year. About the only certainty at this stage is that the Carter NHI bill will call for implementation in stages to avoid a crushing financial burden on the federal treasury.

In addition to the Hospital Cost plan, Congress in the final weeks of the 1977 session was faced with numerous other health issues. Among the measures hanging fire were the HEW appropriation, which had been stalled over the abortion issue; new federal regulations for clinical laboratories; Medicare-Medicaid fraud and abuse; federal aid for rural health clinic physician extenders; the Administration's plan for expanding the child health program; and an omnibus drug bill making many changes in Food and Drug Administration (FDA) operations and regulations, including new labelling language.

Some of these bills were fated to remain lodged in Congress until 1978. The only sure bet for passage in 1977 was the appropriations bill which gives HEW several billion dollars more than President Carter recommended and continues to bar federal Medicaid payments for most abortions.

Other major health bills before Congress included an 18-month delay in the proposed FDA ban on saccharin; amending the renal disease program to encourage self-dialysis

and kidney transplants; establishing a separate Department of Health; and freeing federal scholarship stipends from income tax.

Health spending.

The gloomy report by the Congressional Budget Office (CBO) on health spending advised House and Senate Budget Committees that current control effects "will apparently have little effect on the upward trend in health expenditures . . ."

The report said existing reimbursement, facility, and utilization containment programs can be altered by increasing or decreasing the level of regulation. "Changes must be made in hospital reimbursement practices if some immediate impact on hospital expenditures is to occur," the report said.

The PMA & HEW.

In an 8,800 word critique, the Pharmaceutical Manufacturers Association characterized the Final Report of the HEW Review Panel on New Drug Regulation as a "philosophical endorsement of corrosive regulation" that would create "impediments to the efficiency of the new drug approval process."

PMA said the Panel displays "insufficient understanding of the real world of science," that it leans "toward an adversarial rather than a cooperative philosophy for FDA-industry relationships," and that it ignores the "innovative capabilities" of the American pharmaceutical and device industry, with its more than a billion dollars a year research effort.

"At some point, regulatory demands can become so strict that government will have erected formidable barriers to competitive entry and only the larger and best-equipped firms can continue in the race. In the process, useful new drugs will be lost or delayed and the cost of those still available will be inflated. Government then will have created more concentration in an industry

where both price and product competition have been intense, with the benefits flowing ultimately to the consumer," PMA asserted.

HMOs.

The American public has been getting "a superficial sales pitch" on the worth of

Health Maintenance Organizations (HMOs) according to a study by the AMA.

Advocates of HMOs have claimed that HMOs place a special emphasis on preventive care, "but recent studies indicate that fee-for-service practitioners provide **more** preventive care than do HMOs," said the AMA report.

Surgical Management of Life-Threatening Coronary Artery Disease — J. M. Garcia et al (Dept of Surgery of the Washington Hosp Center, Washington, DC 20010) *J Thorac Cardiovasc Surg* 72:593-595 (Oct) 1976.

Eighteen patients with obstruction of the left main trunk or equivalent coronary artery associated with an obstructed or a non-dominant right coronary artery were studied. All patients had coronary artery bypass surgery because of their symptoms and coronary anatomy. Five patients had coronary artery bypass without the use of preoperative elective intra-aortic balloon counterpulsation, and three of these patients had cardiac arrest prior to insertion of the grafts. The other 13 patients received elective intra-aortic balloon counterpulsation prior to induction of anesthesia and cannulation. None in this second group of patients developed any hypotensive episodes or cardiac arrest, and all have done well following the bypass operation. This experience suggests that the use of elective preoperative intra-aortic balloon assist in patients who have a critical coronary artery obstruction is indicated in view of the high incidence of cardiac arrest observed in patients who did not receive the preoperative elective intra-aortic balloon support.

Transportation in Commercial Aircraft of Passengers Having Contagious Diseases — M. Perin (Central Medical Service, Air France, Paris, France) *Aviat Space Environ Med* 47:1109-1113 (Oct) 1976.

Most airlines refuse to board passengers known or believed to have contagious diseases. Such rigor can scarcely be justified by reference to either laws or regulations. It introduces the risk of arbitrary, mistaken, or prejudiced conduct in areas in which international organizations recommend the greatest liberalization, and it can cause serious harm to certain patients. Finally, it does not seem logical, for airlines learn about only a small fraction of the contagious persons who travel, and public health is much more greatly endangered by unknown contagious persons. Normal hygienic conditions aboard planes suppress the risks of contagion con-

cerning most diseases transmitted by insects or through contact with the skin, mucous membranes, feces, or urine. Airlines should continue to refuse to transport only those passengers having diseases that are characterized by vomiting or serious diarrhea or which are transmitted through the air if it is impossible by simple means to avoid the risk of contaminating other travelers and any members of the flight crew who might be receptive.

Etiology of Acute Epididymitis — J. P. Harnisch et al (K K. Holmes, US Public Health Service Hosp, Seattle, WA 98114) *Lancet* 1:819-821 (April 16) 1977.

Twenty-four patients with acute epididymitis underwent urethral and urine culture tests for *Neisseria gonorrhea*, *Ureaplasma urealyticum*, herpes simplex virus, *Chlamydia trachomatis*, cytomegalovirus, and gram-negative aerobic bacteria. The results suggest that in young men the sexually transmitted organisms which cause urethritis (*N gonorrhea*, *C trachomatis*, and possibly *U urealyticum*) may lead to acute epididymitis, whereas in older men coliforms and *Pseudomonas* are the predominant causes of epididymitis.

Initial Manifestations of Acute Myocardial Infarction — G. Librach et al (JDC-Israel, PO 3489, Jerusalem, Israel) *Geriatrics* 31: 41-46 (July) 1976.

A review of 132 consecutive patients 65 years of age and older who had a myocardial infarction showed that two thirds of them experienced pain at onset. Pain was the only symptom leading to bedside diagnosis in one fourth of the patients. Pain at onset combined with sudden or increased dyspnea was present in one fifth of the patients and pain associated with other symptoms in one sixth. Dyspnea unaccompanied by pain heralded onset of infarction in one fifth of the patients, and in almost 7%, onset was marked only by other symptoms. Cerebral symptoms dominated onset in one tenth of the patients. Preexisting coronary heart disease, hypertension, or diabetes was not predictive of painless infarction.

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ONE MOBILE RADIOGRAPHIC X-RAY FACILITY IN EXCELLENT CONDITION FOR SALE OR LEASE. Completely self-contained x-ray laboratory, consisting of a 22-foot, air-conditioned and vandal-protected Winnebago van, condenser discharge x-ray system with tubestand and table, Dupont daylight film loading system, Kodak automatic cold water film processor and all accessories. Very useful for care of nursing home patients, industrial screening examinations, athletic events, or disaster work. Contact: Drs. Perilla, Sindler & Assoc., P.A., 3350 Wilkens Avenue, Baltimore, MD. 21229.

PSYCHIATRIC RESIDENCE: Vacancies for position for January 1, 1978, for those who have a regular Iowa license or can obtain one by reciprocity or via FLEX. Prepare for career in private practice, community clinics or hospital-based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. The stipends are: 1st Year: \$22,360; 2nd Year: \$23,478; 3rd Year: \$24,674. Intensity and diversity of training program appreciated best by personal visit. T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal Opportunity Employer. Call Collect: 712-225-2594.

FAMILY PHYSICIAN — Opportunity to join six-man group in beautiful Northwest Iowa. New clinic building of 10,000 square feet is located next door to 88-bed county hospital. Unusually progressive community of 10,000 offers 3,000 acre lake, 85 acres of parks and recreation, local liberal arts college, and many family interest features. Generous salary with incentive, malpractice insurance, liberal vacation and seminar time, partnership in one year. Contact: D. A. Pritchard, Administrator, Buena Vista Clinic, 620 Northwestern Drive, Storm Lake, Iowa 50588.

EXPERIENCED EMERGENCY ROOM PHYSICIAN needed immediately in a modern 208-bed general hospital with complete facilities. Excellent starting salary with four weeks paid vacation and education support benefits for 40-hour week. Pleasant midwestern location with 176,000 population. Contact: Carl I. Maltas, Associate Director, Patient Services, St. Elizabeth Community Health Center, 555 South 70th Street, Lincoln, Nebraska 68510.

COLORADO SKI COUNTRY, orthopedic and family practice clinic. Completely equipped. Competent staff, loyal local patients, heavy tourist influx both winter and summer. Excellent skiing, hunting, fishing, boating, hiking. Low malpractice rates. License by reciprocity. Adjacent home. Good income for solo year-round; or rotate your group and vacation with tax writeoff. Owner retiring, but will stay to introduce. If interested, contact Box #63, NEBRASKA MEDICAL JOURNAL, 1902 First National Bank Building, Lincoln, NE. 68508.

THE ANXIETY-SPECIFIC.

- a predictable pattern of patient response
- seldom associated with serious side effects, in proper dosage
- rarely interferes with mental acuity
- used concomitantly with many primary medications
- three dosage strengths meet most patient needs

LIBRIUM® chlordiazepoxide HCl/Roche 5mg, 10mg, 25mg capsules

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psycho-

Libritabs® (chlordiazepoxide) available in 5 mg, 10 mg and 25 mg tablets.



tropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relation-

ship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. **Oral—Adults:** Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* **Geriatric patients:** 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



Roche Laboratories
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Please see following page.

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Since its discovery in the research laboratories at Roche, Librium has been the object of ongoing pharmacologic and clinical investigation.

The published record on Librium is enormous. So large, in fact, we put it into a computer literature retrieval system to make it more accessible in answering your inquiries.*

It's a record that reveals a consistent pattern of patient response. A highly favorable benefits-to-risk ratio. And minimal interference with many primary medications.

Doing one thing well. Basically, that's what Librium is all about.

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*If you have a question about Librium or any other Roche product, write to Professional Services, Roche Laboratories, Nutley, New Jersey 07110.

Please see preceding page for a summary of product information.



BALCONY

The Nebraska Medical Journal

November, 1977

THE

NEW YORK
JULY 10029

A character all its own.



Valium (diazepam) is a benzodiazepine with a character all its own.

Pharmacologically, it has been described as more potent mg-per-mg than other available anxiolytic benzodiazepines. Pharmacokinetically, only Valium provides active *diazepam* as well as the active metabolites 3-hydroxydiazepam, desmethyldiazepam and oxazepam.

But the individual character of Valium is even more apparent clinically than pharmacokinetically. And far more significant. That's because of the patient response obtained with Valium. A response which brings a calmer frame of mind. A response which has a pronounced effect on the somatic symptoms of anxiety, particularly muscular tension. A response which helps the patient feel more like himself again because of the way Valium reduces the overwhelming symptoms of anxiety and psychic tension.

Another important aspect of the clinical character of Valium is safety. Though drowsiness, ataxia and fatigue are possible, these and more serious side effects are rarely a problem. Of course, as with all CNS-acting drugs, patients taking Valium should be cautioned against driving, operating dangerous machinery or the simultaneous ingestion of alcohol.

Unquestionably, many psychotherapeutic agents, including other benzodiazepines, have antianxiety effects. But one fact remains: you get a certain kind of patient response with Valium. It's a response you want. A response you know. A response you trust as part of your overall management of anxiety and psychic tension.

Valium® (diazepam) IV

2-mg, 5-mg, 10-mg scored tablets
a prudent choice in psychic
tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.



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The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
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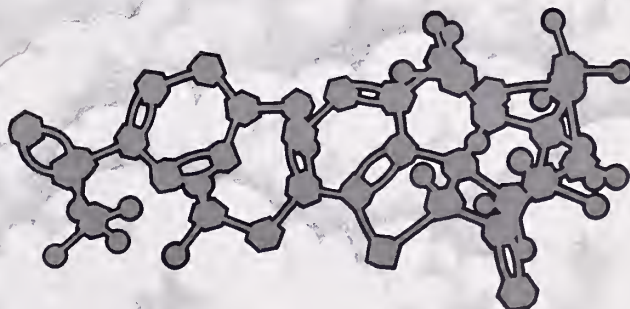
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*National Disease & Therapeutic Index, Jan.-Dec., 1976. IMS America Ltd., Ambler, Pa. 1976.
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Acton, Mass., 1973, pp. 482-3.

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Description. Tedral: each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital.

Tedral SA: each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer); 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer); 25 mg phenobarbital in the immediate release layer.

Tedral Elixir: each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine hydrochloride, and 2 mg phenobarbital; the alcohol content is 15%.

Indications. Tedral, Tedral SA, and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal or perennial asthma.

Tedral SA (Sustained Action) offers the convenience of b.i.d. dosage.

Tedral Elixir is convenient for persons who may have difficulty in swallowing tablets.

These Tedral formulations are adjuncts in the total management of the asthmatic patient. Acute or severe asthmatic attacks may necessitate supplemental therapy with other drugs by inhalation or other parenteral routes.

Contraindications. Sensitivity to any of the ingredients; porphyria.

Warnings. Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

Precautions. Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

Adverse Reactions. Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

Average Dosage. *Prophylactic or Therapeutic.*

Tedral: *Adults*—One or two tablets every 4 hours. *Children*—(Over 60 lb) one-half the adult dose.

Tedral SA: *Adults*—One tablet on arising and one tablet 12 hours later. Tablets should not be chewed. *Children*—Not established for children under 12.

Tedral Elixir: *Note:* One teaspoonful is equivalent to *one-quarter* Tedral tablet. *Children*—One teaspoonful per 30 lb body weight, every 4-6 hours, unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution. *Adults*—One to two tablespoonfuls every four hours.

Supplied. Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

Tedral SA: Double-layered, uncoated, coral/mottled white tablets in bottles of 100 (N 0047-0231-51) and 1000 (N 0047-0231-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0231-11).

Tedral Elixir: Dark red and cherry-flavored in 474 ml (16 fl oz) bottles (N 0047-0242-16).

STORE BETWEEN 59° and 86°F (15° and 30°C).

Full information is available on request.

Permanent Extracorporeal Esophagogastric Tube for Esophageal Replacement — D. B. Skinner (Dept. of Surgery, Univ of Chicago Hosp and Clinics, 950 E 59th St, Chicago, IL 60637) and T. R. DeMeester *Ann Thorac Surg* 2:107-111 (Aug) 1976.

Six patients are presented in whom an extracorporeal esophagogastric tube bypass was employed in lieu of standard methods of esophageal reconstruction. These tubes, obtained from Japan, have functioned well in four of the six patients. This approach offers an alternative to gastrostomy feedings alone in a patient with advanced esophageal disease in whom no other method of surgical reconstruction can be offered.

Radiation as Cause of Breast Cancer — N. Simon (The Mount Sinai School of Medicine of the City Univ of New York, New York, NY 10029) and S. M. Silverstone, *Bull NY Acad Med* 52:741-751 (Sept) 1976.

In young women below the age of 50, the factors that limit the benefits and increase the risks from mammography may be listed as follows: The hazard of radiation carcinogenesis is increased. Dense breasts require greater exposure of radiation for penetration in mammography. Diagnosis is difficult; a small tumor cannot be discerned in the midst of dense breast tissue. The yield of cancer finds is low.

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Common-Source Epidemic of Hepatitis Due to Glazed and Iced Pastries — S. C. Schoenbaum et al (Bureau of Epidemiology, Center for Disease Control, Atlanta, GA 30333) *Am J Epidemiol* 104:74-80 (July) 1976.

Sixty-one clinical cases of hepatitis occurred in Ogemaw County, Michigan, in late April and May 1968. The clustering of cases in time and the high attack rate for persons 10 to 19 years of age suggested a common source of exposure. Investigation implicated a local bakery, where one of the employees directly involved in the baking had had an icteric illness one month before the outbreak. Comparison of exposure histories of patients vs. healthy family members established pastries covered with glaze or icing as the vehicle of infection. The glaze and icing were applied to the pastries after all baking had been completed. During the epidemic, immune serum globulin was given on a community-wide basis. No secondary cases of hepatitis were identified.

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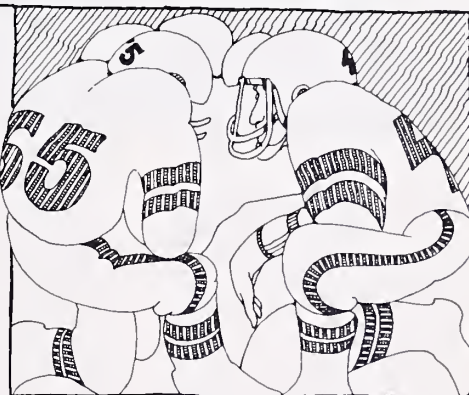
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Seasonality of Schizophrenic Births in the United States — E. F. Torrey et al (St. Elizabeths Hosp, Washington, DC 20032) Arch Gen Psychiatry 34:1065-1070 (Sept) 1977.

The birth months of persons later diagnosed as schizophrenic were studied. Data were collected from 19 states on 53,584 schizophrenics born between 1920 and 1955. The controls were the general births in the same states for the same years. A highly significant peak in schizophrenic births were found from December to May, most marked in March and April. The seasonality was stronger in New England and the Midwest than in the South. Previous studies of schizophrenic births are also reviewed. The cumulative evidence would appear to establish more firmly a winter and spring seasonality of schizophrenic births in northern Europe and the eastern United States. Selection of patients, nutritional factors, environmental factors, genetic factors, and infectious agents are discussed as possible etiological explanations.

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NOTE: See following page for full prescribing information.

AN IMPORTANT NOTE:

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.



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Adult Hypercholesterolemic	1.0-2.0 mg.	1.0-2.0 mg.	4.0-8.0 mg.	4.0-8.0 mg.
Pediatric Hypercholesterolemic	0.05 mg./kg. body weight	0.05 mg./kg.	0.1 mg./kg. body weight	4.0 mg.
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Description

CHOLOXIN (sodium dextrothyroxine) is the sodium salt of the dextrorotatory isomer of thyroxine. It is chemically described as 0-3,5,3',5'-tetraiodothyroline sodium salt.

Actions

The predominant effect of CHOLOXIN (sodium dextrothyroxine) is the reduction of serum cholesterol levels in hyperlipidemic patients. Beta lipoprotein and triglyceride fractions may also be reduced from previously elevated levels.

Most of the available evidence indicates that CHOLOXIN (sodium dextrothyroxine) stimulates the liver to increase catabolism and excretion of cholesterol and its degradation products via the biliary route into the feces. Cholesterol synthesis is not inhibited and abnormal metabolic end-products do not accumulate in the blood.

Indications

This is not an innocuous drug. Strict attention should be paid to the indications and contraindications.

CHOLOXIN (sodium dextrothyroxine) is an antilipidemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease.

The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication. Before prescribing, note the following: Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation. There may be an additive effect. This additive effect may possibly stimulate the myocardium excessively, in patients with significant myocardial impairment. CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly. Careful monitoring of the total effect of both drugs is important.

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Contraindications

The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated:

1. Known organic heart disease, including angina pectoris; history of myocardial infarction; cardiac arrhythmia or tachycardia, either active or in patients with demonstrated propensity for arrhythmias; rheumatic heart disease; history of congestive heart failure; and decompensated or borderline compensated cardiac status.
2. Hypertensive states (other than mild, labile systolic hypertension).
3. Advanced liver or kidney disease.
4. Pregnancy.

5. Nursing mothers.
6. History of iodism.

Warnings

CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time. Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment.

In the surgical patient, it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated.

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease, treatment should be initiated with care. Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required. This drug may increase the oxygen requirements of the myocardium, especially at high dosage levels. Treated subjects with coronary artery disease must be seen at frequent intervals. If aggravation of angina or increased myocardial ischemia, cardiac failure, or clinically significant arrhythmia develops during the treatment of hypothyroid patients, the dosage should be reduced or the drug discontinued.

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine). As with all thyroidactive drugs, hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients.

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency. This condition may be enhanced in patients receiving thyroid analogues. These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease.

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones, it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation. During emergency surgery in euthyroid patients, and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy, the patients should be carefully observed.

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents. Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs. If sodium dextrothyroxine is later withdrawn from

patients who had required an increase of insulin (or oral hypoglycemic agents) dosage during its administration, the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state.

When either or both impaired liver or kidney function are present, the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results.

Usage in Women of Childbearing Age

Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug; it can be given to those patients exercising strict birth control procedures. Since pregnancy may occur despite the use of birth control procedures, administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother. Teratogenic studies in two animal species have resulted in no abnormalities in the offspring.

Precautions

It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein-bound-iodine levels. These increased serum PBI values are evidence of absorption and transport of the drug, and should NOT be interpreted as evidence of hypermetabolism; similarly, they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine). PBI values in the range of 10 to 25 mcg% in treated patients are common. If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy, the drug should be discontinued.

A few children with familial hypercholesterolemia have been treated with CHOLOXIN for periods of one year or longer with no adverse effects on growth. However, it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol-lowering effect is observed.

Adverse Reactions

The side effects attributed to dextrothyroxine therapy are, for the most part, due to increased metabolism, and may be minimized by following the recommended dosage schedule. Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease; the incidence of adverse effects is increased in hypothyroid patients, and is highest in those patients with organic heart disease superimposed on the hypothyroid state.

In the absence of known organic heart disease, some cardiac changes may be precipitated during sodium dextrothyroxine therapy. In addition to angina pectoris, arrhythmia consisting of extrasystoles, ectopic beats, or supraventricular tachycardia, ECG evidence of ischemic myocardial changes and increase in heart size have been observed. Myocardial infarctions, both fatal and non-fatal, have occurred, but these are not unexpected in untreated patients in the age groups studied. It is not known whether any of these infarcts were drug related.

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia, nervousness, palpitations, tremors, loss of weight, lid lag, sweating, flushing, hyperthermia, hair loss, diuresis, and menstrual irregularities. Gas-

trointestinal complaints during therapy have included dyspepsia, nausea and vomiting, constipation, diarrhea, and decrease in appetite.

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease), hoarseness, tinnitus, dizziness, peripheral edema, malaise, tiredness, visual disturbances, psychic changes, paresthesia, muscle pain, and various bizarre subjective complaints. Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine by some investigators. Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient, although its relationship to CHOLOXIN therapy was not established.

In several instances, the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine); a worsening of peripheral vascular disease, sensorimotor, exophthalmos, and retinopathy have been reported.

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants, such as warfarin or Oicumarol, on prothrombin time, thus indicating a decrease in the dosage requirements of the anticoagulants. On the other hand, dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section).

Dosage and Administration

For adult euthyroid hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day. The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, if that dosage level is indicated to effect the desired lowering of serum cholesterol.

When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication, the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, preferably the lower dosage. The maximum in patients receiving digitalis therapy is 4 mg.

For pediatric hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0.1 mg (100 mcg) per kilogram. The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals. The recommended maximal dose is 4 mg daily, if that dosage is indicated to effect the desired lowering of serum cholesterol.

If new signs or symptoms of cardiac disease develop during the treatment period, the drug should be withdrawn.

How Supplied

CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1, 2, 4, and 6 mg tablets.

Intravenous Fructose Treatment of Acute Alcohol Intoxication — R. Levy et al (I. B. Hanenson, Univ of Cincinnati Medical Center, Cincinnati, OH 45229) Arch Intern Med 137:1175-1177 (Sept) 1977.

This study, designed to determine the efficacy of the intravenous administration of fructose in the treatment of acute alcohol intoxication, was prospective and double-blind, with glucose serving as the control. Treatment with glucose and fructose was determined by random selection. Fructose administration did not alter the clinical status or rate of alcohol metabolism as reflected by the decline in serum concentration. In addition, a significant elevation ($P < .05$) in serum uric acid and lactate levels occurred in the patients receiving fructose. Fructose is of no value in the treatment of acute alcohol intoxication and produces metabolic abnormalities that could be harmful to the patient.

* * *

The long habit of living indisposeth us to dying.

Thomas Browne

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Tablets

Percodan® 

DESCRIPTION Each yellow, scored tablet contains 4.50 mg. oxycodone HCl (WARNING: May be habit forming), 0.38 mg. oxycodone terephthalate (WARNING: May be habit forming), 224 mg. aspirin, 160 mg. phenacetin, and 32 mg. caffeine.

INDICATIONS For the relief of moderate to moderately severe pain.

CONTRAINDICATIONS Hypersensitivity to oxycodone, aspirin, phenacetin or caffeine.

WARNINGS Drug Dependence Oxycodone can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence and tolerance may develop upon repeated administration of PERCODAN®, and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral narcotic-containing medications. Like other narcotic-containing medications, PERCODAN® is subject to the Federal Controlled Substances Act.

Usage in ambulatory patients Oxycodone may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using PERCODAN® should be cautioned accordingly.

Interaction with other central nervous system depressants Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics or other CNS depressants (including alcohol) concomitantly with PERCODAN® may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Usage in pregnancy Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, PERCODAN® should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

Usage in children PERCODAN® should not be administered to children.

Salicylates should be used with caution in the presence of peptic ulcer or coagulation abnormalities.

PRECAUTIONS Head injury and increased intracranial pressure The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Further more, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions The administration of PERCODAN® or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Special risk patients PERCODAN® should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, and prostatic hypertrophy or urethral stricture.

Phenacetin has been reported to damage the kidneys when taken in excessive amounts for a long time.

ADVERSE REACTIONS The most frequently observed adverse reactions include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients, and some of these adverse reactions may be alleviated if the patient lies down.

Other adverse reactions include euphoria, dysphoria, constipation and pruritus.

DOSAGE AND ADMINISTRATION Dosage should be adjusted according to the severity of the pain and the response of the patient. The usual adult dose is one tablet every 6 hours as needed for pain.

DRUG INTERACTIONS The CNS depressant effects of PERCODAN® may be additive with that of other CNS depressants. See WARNINGS.

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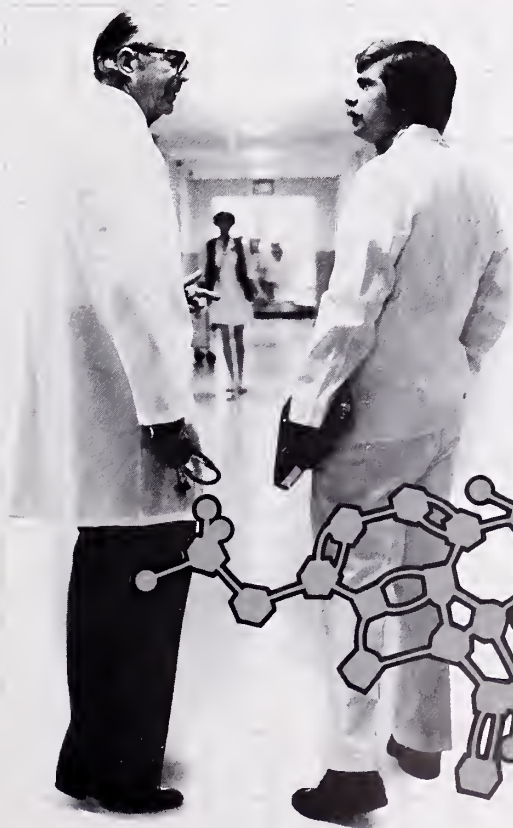
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II



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Please see preceding page for a summary of product information.

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- used concomitantly with many primary medications
- three dosage strengths meet most patient needs

LIBRIUM® chlordiazepoxide HCl/Roche 5mg, 10mg, 25mg capsules

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psycho-

Libritabs® (chlordiazepoxide) available in 5 mg, 10 mg and 25 mg tablets.



tropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relation-

ship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. **Oral—Adults:** Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* **Geriatric patients:** 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10.

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THE NEBRASKA MEDICAL JOURNAL

LET'S MAKE HOUSE CALLS

The day after you've talked to a patient in your office or on the telephone, and there was hurting or nausea or malaise, make a house call. Pick up the phone, dial the patient's number, say hello, give your name, and repeat these words: "How are you?"

It's an easy house call to make, and it will be good for both of you.

—F.C.

THE HORSE AND BUGGY DOCTOR

The horse and buggy doctor had so many things going for him. If it was an unusual fracture or a difficult delivery, he could read a book while he was driving, because he didn't need to watch the road constantly, and because he had twenty minutes to relearn.

He had something else; he had the answer to the energy shortage, too. And I wonder if parking horses and buggies in the hospital parking lot may not be coming back.

Somebody once said of a horse and buggy doctor that he was either a horse doctor or he was buggy, but he couldn't have been serious.

Bring back the horse. You didn't need antifreeze or oil or grease or a five to ten thousand dollar car, or gasoline. Or a three hundred horsepower motor. One horsepower was enough.

—F.C.

THEY WERE THE BEST

The hot-stove league is always in session, and I am pleased to give you the findings of its latest meeting, which coincide with my own preferences; they are mine, but they are perfectly rational, and there is no need for other opinions.

Ty Cobb was a better base stealer than anybody around now. Babe Ruth in his prime would have sent Hank Aaron to the showers. Ali would have had no chance in the same ring with Marciano, or with Dempsey, either.

Man o'War would have left Secretariat at the starting gate.

But suppose you could get Osler to tell you what was wrong with you, and Halsted to operate?

You would be in good hands.

Do they only *seem* good, looking back from our time to theirs? Were they supreme because there was nobody else? Could they have kept up with the best we have now?

Easily; giants do not come along every day. Who will rival Newton and Einstein, whose writing surpasses Shakespeare's, who has painted better than Leonardo? Nobody, that's who. You can't get Hippocrates or Paracelsus to make a house call now, or Lister to repair your hernia, but when the time machine comes along, you might try. Get Cushing for your operation, and Snow for the anesthesia; if you can't get Snow, take Wells. Tell them I sent you.

—F.C.

THE ANTIGONNA SOCIETY

I mean to spike the guns of my adversaries at the start, by confessing that without the inroads made by those who mistreat the English language, we should be speaking old English, but I see no harm in that. And the argument put forth by those who, while they point to their diplomas, cannot construct a proper English sentence or, worse yet, speak it, that *you know what I mean*, is not valid.

Man does not live by bread alone. There is room, there is a need, for beauty and for culture in our lives, without which existence would be colorless; and we invent the dance, music, poetry, and painting; and if there is poetry, there will be good prose.

But there is a second reason: lives have been lost by poor speech, where two do not understand each other. I have seen this sort of thing, I have witnessed it in the operating room, where it proved dangerous.

Let us begin somewhere; I suggest that we start with something of which most of us

are guilty; we have miles to go, but let us take the first step and pronounce the words *going-to* clearly, and do not say, as so many of us say, *gonna*; welcome to the club.

—F.C.

WHO PUBLISHES WHERE AND WHO READS WHAT?

I have just run across two articles in *Lancet*, both written by authors living in the United States. Less often, British writers will publish in American journals. Did the Americans try American journals, I wonder, or did they desire diversification, or prestige, or did they want their writing read abroad?

When the article is published, who will read it; will NEJM followers read *Lancet*, do JAMA subscribers go through *BMJ*?

Should you try to publish in a large-circulation magazine, or will you want a specialty journal? Will you send a surgical manuscript to *Amer J Surg*, or to *Ann Surg*, or *Arch Surg*, or to *JAMA*? If it is nonsurgical, there are just as many editorial offices to write to; and there are your own state journals, where your colleagues will see what you have written.

It may make little difference. If your article or letter went overseas, the pages it took up brought about the publishing of another doctor's work in Chicago. But will they be read by the same people? We speak English on both sides of the Atlantic, but I do not think the reader-lists will be the same. It is just as well.

—F.C.

Muscle Transfers in the Treatment of Facial Palsy

G. WM. LeWORTHY, M.D., F.A.C.S.

DEFORMITIES secondary to facial paralysis, such as sagging of the face, ectropion, epiphora, and drooling, can be distressing to the person afflicted with facial nerve paralysis due to illness, trauma, or congenital deformity.

Charles Bell in 1814 proved that the facial nerve was a motor nerve, and described Bell's palsy in humans in 1821. The surgical techniques of nerve repair, nerve grafting, nerve transposition, fascia lata strips and muscle transfers, have been used to treat the deformities of apparently permanent facial paralysis.

This paper deals with muscle transfers of temporalis and masseter muscles, to support and activate the paralyzed eyelids and mouth. This is not a new procedure. As early as 1867, Lexer is quoted by Adams as using the masseter muscle transfer to support the mouth. Gillies and Sheehan were first to popularize the use of the temporalis muscle flaps.

Muscle transposition consists of using portions of the temporalis or masseter muscles to support and reactivate the eyelids and mouth. These muscles are innervated by the trigeminal nerve, and are not affected by facial nerve deficiencies. To be functional, the transposed muscles must have adequate strength, blood supply, and nerve supply, and must be put under the proper tension so that they function, but not too much tension so that the muscle fibers may lose their blood supply and become fibrotic.

Incisions are made in the temporal area within the hairline on the affected side, down to the temporalis fascia. Incisions are made transversely at the lateral corner of the eye, just lateral to the lateral canthus of the eye, and a vertical incision is made over the medial canthal ligament. A 1/2 to 5/8 inch strip of temporalis fascia and underlying muscle is dissected free from the zygomatic arch to the temporal ridge of the skull.

Dissection is carried down through the periosteum. This muscle strip, with its nerve and blood supply, is carefully elevated. The temporalis fascia is separated from the muscle, the junction of the fascia and muscle is reinforced with non-absorbable sutures. The fascial strip thus outlined is split in half, one half for each eyelid. A tunnel is constructed between the temporal incision and the lateral canthal incision, and tunnels are dissected under the skin of the eyelids and overlying the tarsal plates. By means of these tunnels, the muscle is turned down, the fascial strips are taken across the eyelids, and each fascial strip is placed under the medial canthal ligament, which is dissected free. The strips are then pulled so that the eyelids are closed tightly, and the upper eyelid slightly overlaps the lower eyelid. The fascial strips are then sutured to each other and to the tarsal plate, and to the medial canthal ligament, and the incisions are closed. Care must be taken to get the strips low enough on the tarsal plates immediately above the lashes, or tension on them may produce an ectropion. Other procedures to the eyelids may be necessary, such as the Kuhnt-Szymanowski procedure, or the excision of a wedge of eyelid tissue of the lower eyelid if it is too flaccid.

If the masseter muscle is transferred, an incision is made under the angle of the mandible, and the masseter insertion is exposed. Another incision is made in the nasolabial fold of the afflicted side. It is helpful to place fascia lata strips from the midline of both lips to the angle of the mouth at a separate operation approximately 6-8 weeks before the muscle transfer. The anterior 1/3 to 1/2 of the masseter muscle is then separated at its insertion on the inferior border of the mandible, and by blunt dissection, is carefully split from the rest of the muscle. If the nerve is approached and

the muscle twitches, this is a signal to cease the dissection. The muscle insertion is then brought forward through a subcutaneous tunnel, and attached to the previously placed fascial strips. A partial face lift may be combined with the muscle transfer on the affected side.

Following are some case reports of eyelid reanimation by temporalis muscle transfers:

1. Female, born in 1955 with a weakness of the left facial nerve. (Fig. 1) It was found that she had partial facial paralysis, and could not close her eyelids. She drooled from the left side of the mouth. The nerve function improved until she was age 4, and there has been no significant improvement since then. When first seen at age 16, there was total paralysis of the frontal branch of the facial nerve, partial

paralysis of the nerves to the eyelids and mouth, and no apparent weakness of the nerve to the platysma muscle. She could close her left eye, but not as tightly as on the normal right side. At age 16, a temporalis muscle transplant was done in order to help her close the left eye. When seen 5 years later, the patient still could close the eye by biting (Fig. 2).

2. Male, born 5-21-59, with paralysis of the frontal branch of the facial nerve, and weakness of the next 3 branches. (Fig. 3) There was apparently normal platysma motion. He was concerned about the fact that the palpebral opening was much larger on the left than on the right. Operation was done in July 1970, and a temporalis transfer was done to the eyelids. Two years later the patient can close his eyes by biting. (Fig. 4)

Figure 1



Figure 2



Case #1 — Figures 1 and 2 — widened palpebral fissure on left before surgery. NOTE: Five years later, patient can still voluntarily close the semi-paralyzed eye by biting.

Figure 3



Figure 4



Case #2 — Before surgery, note inability to close left eye, and ability to close it tightly 2½ years following surgery.

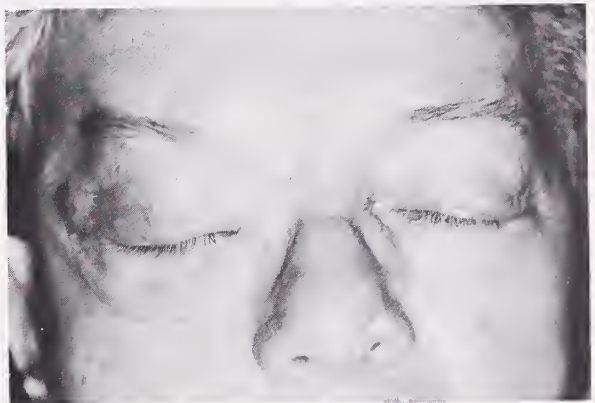
3. Widow, 71 years old, was seen 10 months after Bell's palsy, with very little recovery. On October 10, 1973, a Kuhnt-Szymanowski procedure was done, and the patient seemed to do well. In April, 1976, the patient returned with another ectropion, and in May a temporalis transfer was done to activate the eyelids. A section of lower eyelid was removed, together with a face lift on the right side. When last seen, 7 months later, the patient did close her eyes, and the muscle was still functional. (Fig. 5 & 6).
4. Male, born in 1924. He was injured in World War II, and suffered total facial paralysis on the right. He had a number of operations for this, and he was first seen in June, 1975, with total paralysis of the right facial nerve. The lower eyelid on the right was 4½ mm lower than on the

normal lid on the left. Temporalis transfer was performed, as well as lateral canthoplasty, on September 16, 1975. Subsequent to this operation, the patient could close his eye by biting. On October 31, 1975, he was again operated, and a fascial strip was removed from the right thigh and placed around the right half of the upper and lower lips. On February 12, 1976, a face lift, together with a masseter transfer to the previously placed fascial strips, was done. Following this surgery, the patient developed a large hematoma, and it was necessary to evacuate this hematoma and resuture the face lift. When last seen in November, the patient had motion of both the muscle transplants, but the right corner of the mouth was still somewhat lower than the left, and the right eye still watered. (Fig. 7 and 8).

Figure 5



Figure 6



Case #3 — Note ectropion and paralysis of right lower eyelid prior to surgery, and ability to close right eye tightly following this transfer.

Figure 7

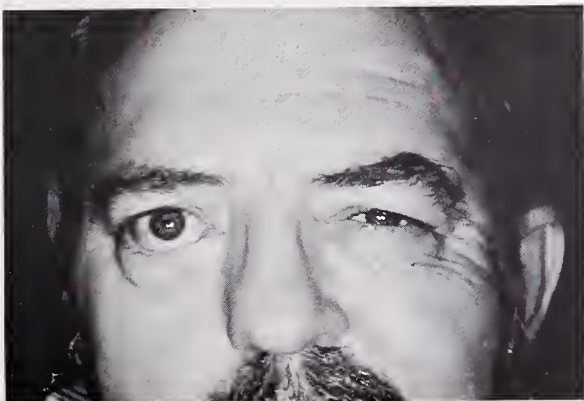
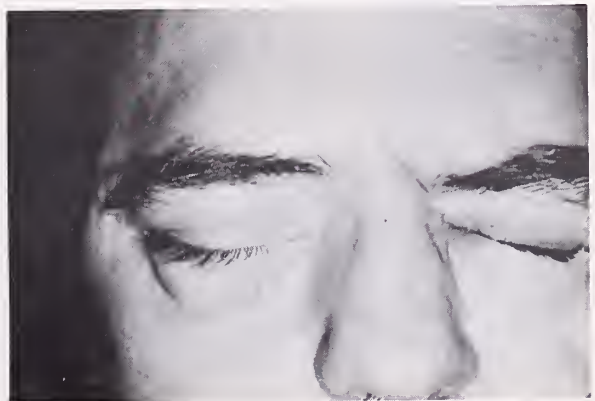


Figure 8



Case #4 — Wide open palpebral fissure on the right, secondary to facial paralysis, with ability to close right eye 14 months following surgery.

Further surgery is contemplated for this patient.

In addition to transfer of parts of these muscles, some authors are now suggesting the possibility of using the entire temporalis muscle, using a portion of it for the eyelids, and the remainder of it for reanimation of the mouth, dividing the muscle into two to four strips.

DISCUSSION:

Muscle transfers to reactivate the face can

produce support and dynamic motion of the face, if the patient practices biting when he wants to move the face. This procedure can be combined with fascia lata support, face lifts, eyelid plastic procedures, and weakening of the contralateral muscles, in order to achieve symmetry. Some feel that the muscles may become atrophic and cease to work in the long term, and that it is not good long term treatment. However, in the above cases, it has seemed to produce good results over a period of two months to five years.

Computerized Tomography of the Head

— Part II

Abstract

With computerized tomography of the head, more accurately entitled computer-assisted transverse axial tomography, similar tissue densities are separated and an anatomic picture of the intracranial contents is reconstructed using a technique of thin x-ray beam transverse and axial tomographic scanning of adjacent slices of the head.

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Conventional radiographic techniques are insufficiently sensitive to small differences in radiodensity of soft tissues, with the exception of air or fat which are not normally found intracranially, to provide direct information concerning their composition. A large proportion of the available information is lost in attempting to display all the information from a three dimensional object on a two dimensional x-ray with all objects being superimposed front to rear and only those tissues which differ appreciably in density being distinguished.

MECHANICS

Computerized tomography (CT) of the head as introduced by EMI Limited was developed by Mr. Godfrey N. Hounsfield, a senior research scientist of the EMI Central Research Laboratories at Hayes, Middlesex, England. The system is a revolutionary departure from established, conventional radiographic techniques in the mechanics of the system, the amount and extent of information obtained under physiologic, non-invasive conditions and the virtual lack of patient discomfort.

Computerized tomography, more accurately known as computer-assisted transverse axial tomography, is capable of resolving soft tissue structures which differ only slightly from one another in density by building up an image of absorption coefficient values or

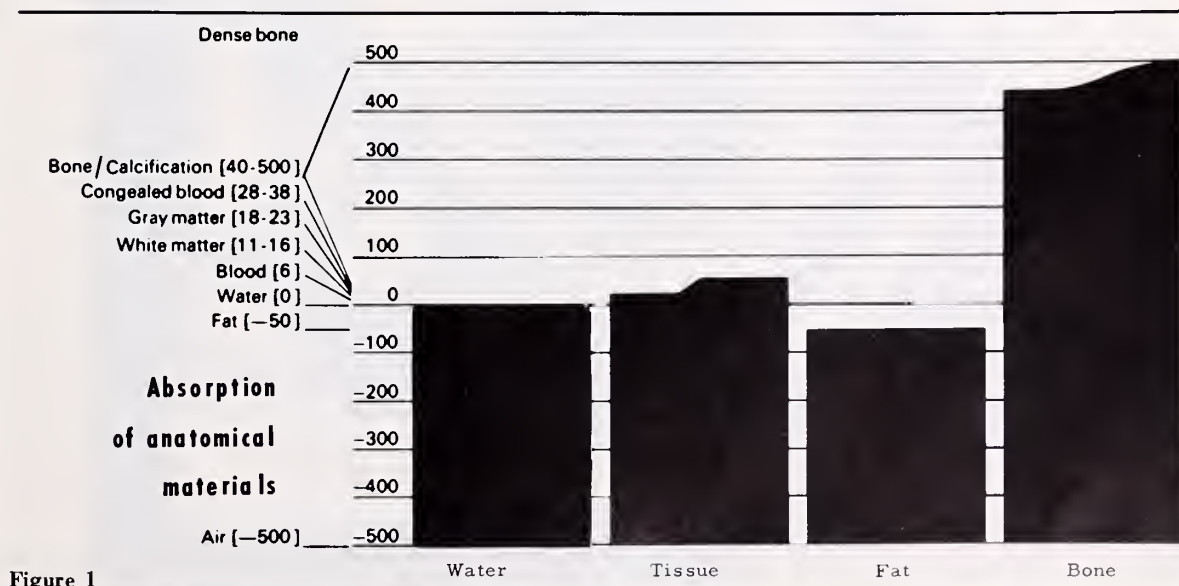


Figure 1

Absorption coefficients (densities) of anatomic material
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densities with the aid of a computer by a technique of narrow x-ray beam scanning across thin contiguous axial slices of the head from multiple directions. With head CT, tissues of similar density are separated and a picture of the intracranial soft tissue structures is built up. The information derived from any object within the slice is unaffected by variations in the material on either side of the slice and differences in radiodensity or absolute absorption coefficient can be calculated with an accuracy of greater than 0.5%.

Relative to water, the variations in tissue density or absolute absorption coefficient within the head cover a range of 4%. Expanding this range by a factor of five and relating the radio-densities to water one creates the EMI 1000 unit scale of absorption coefficients of anatomic material shown in

Figure 1 where water equals 0, air equals minus 500 and dense bone equals plus 500.

The patient's head is scanned through water rather than air; this increases the accuracy of the machine as the absorption coefficient of water is closer to that of the intracranial contents and bone than is air (Figure 1) and thus reduces the range of reading or absorption coefficients with which the computer must work and thus simplifies computation. The water serves to standardize the strength of the x-ray beam and provide a region of known density for the computer.

The patient lies in a supine position on an adjustable table and his head is placed within a water filled plastic box in the circular opening in the middle of the scanning apparatus, supported on a head support and

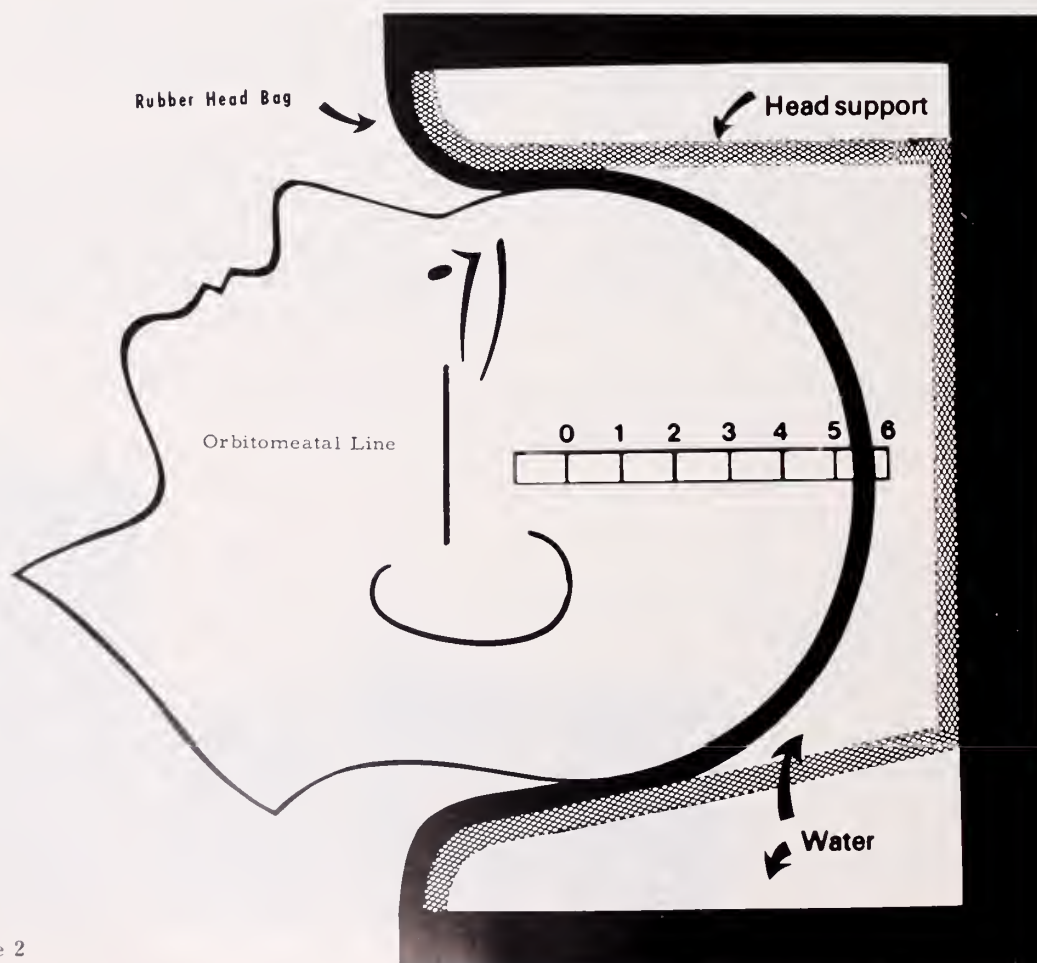


Figure 2

Head positioned within head support and surrounded by water filled rubber head bag.

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surrounded by a rubber head bag which projects into the water filled box (Figure 2). Once the head is in place and at the desired angle with respect to Reid's baseline for scanning (0° - 35° to the orbitomeatal line) water flows back into the rubber head bag and forces the head bag against the skull, replacing air from around the skull with water and creating a homogenous water-bone interface rather than an air-bone interface (Figure 2).

With the head properly positioned and at the desired angle the head is scanned by a narrow beam of x-rays either 26 mm or optionally 16 mm wide. The x-ray tube and twin detectors mounted one above the other along the vertical axis of the head are part of a common frame with the two detectors (scin-

tillation counters) always pointing toward the x-ray source and moving in parallel with the x-ray tube and each detecting one half of the x-ray beam intensity following its transmission through the head during the transverse scan (Figure 3). Thus, each detector examines a 13 or 8 mm contiguous slice of the head. The x-ray source in narrow beams and the twin detectors scan linearly across the patient's head taking 160 readings of transmission through the head (Figure 3 and Figure 4, Scan 1). At the end of this 160 narrow beam linear scan, the entire scanning frame or gantry notches around one degree and the process of 160 narrow beam linear scanning is repeated (Figure 4, Scan 2 and Scan 3). This then continues for 180 degrees or optionally 225 degrees so that 28,800 ($180^{\circ} \times$

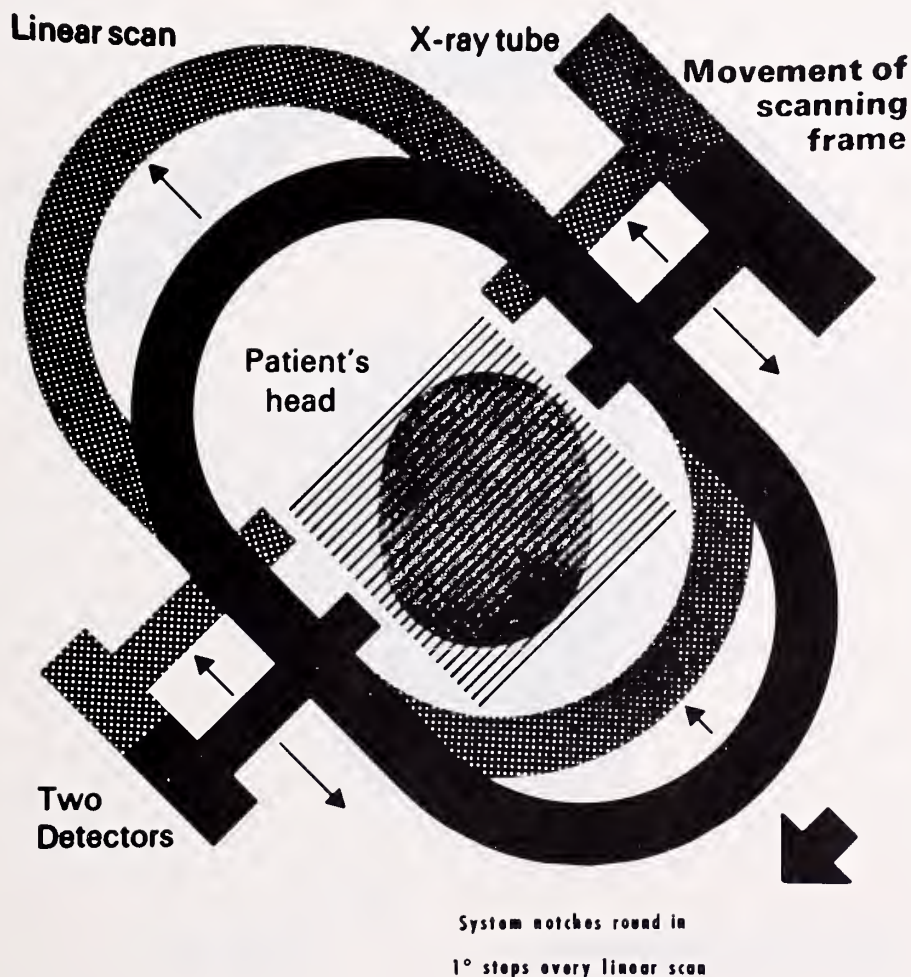


Figure 3

Movement of scanning frame.
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160 linear scans) or 36,000 ($225^\circ \times 160$ linear scans) transmission readings will have been taken by each detector. A single complete scan sequence of two 13 mm or optionally two 8 mm thick contiguous slices of brain is usually taken at 25 mm intervals for four levels, takes approximately 4.5 minutes and views two adjacent slices of brain. Each detector sends the transmission readings that it has received through the analogue/digital converter to the magnetic disc unit and onto the computer which then solves the 28,800 (or optionally the 36,000) simultaneous equations and calculates 25,600 (160×160) absorption values of the material in each slice and then displays the information numerically by a line printer or sends the information back to the magnetic disc unit and onto the digital/

analogue converter to be displayed either on a cathode ray oscilloscope or on Polaroid film.

The final reconstruction of anatomy is built up by treating each slice of brain as a matrix made up of 160×160 cells of equal size in which each picture point, or cell represents a $1.5 \times 1.5 \times 13$ (or 8) mm tissue block. The computer having calculated and assigned an absorption coefficient, as represented by the expanded EMI absorption coefficient scale (Figure 1), for each of the 25,600 (160×160) cells of the matrix, displays them either as a numerical print out of the absorption coefficients of the material at each point in the slice or in analog form as a cathode ray tube picture in which the brightness of each point

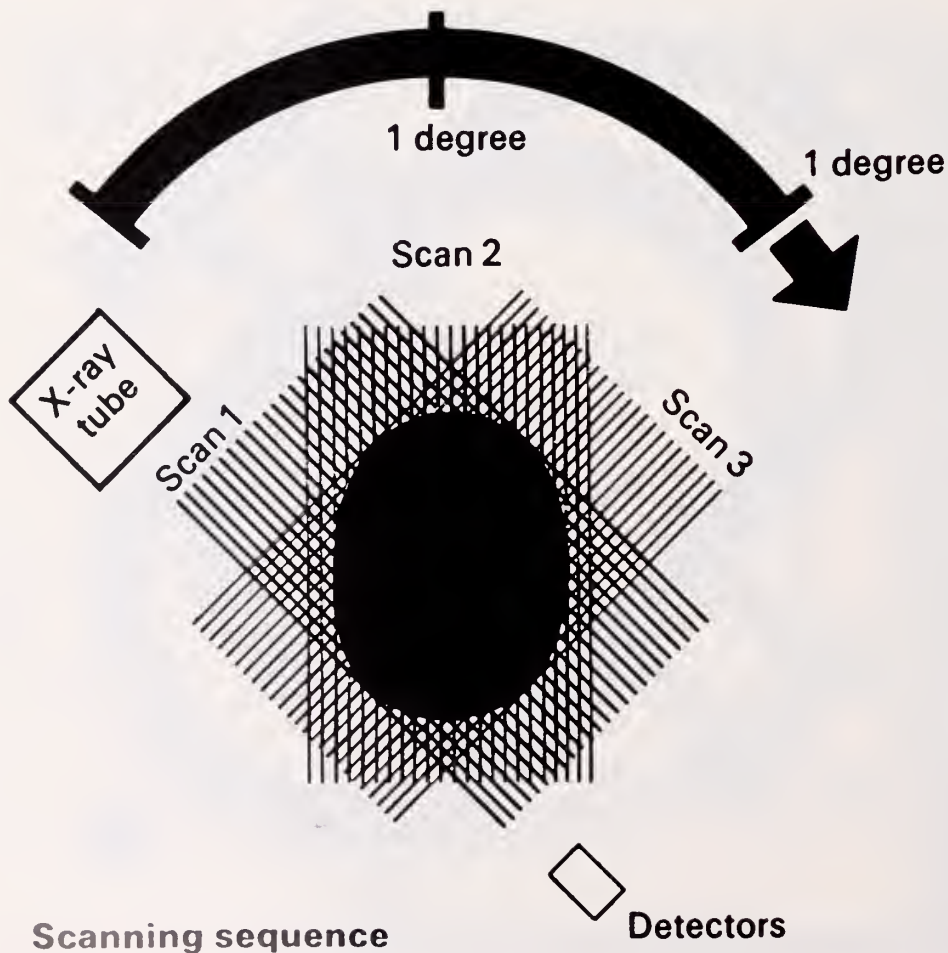


Figure 4

Scanning sequence.
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is proportional to its absorption coefficient or density.

The clinical application of computerized tomography of the head in the screening and evaluation, management and follow-up of intracranial central nervous system neuropathology will be dealt with in detail in subsequent parts of this continuing series on computerized tomography of the head.

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Parietal Cell Vagotomy — A New Look at the Operative Treatment of Peptic Ulcer Disease

OVER the past half century, we developed numerous operations which effectively control the complications of peptic ulcer disease. The current thrust of surgical research has been aimed at improving the results of these operations and attempting to reduce their undesirable side effects, (ie: dumping syndrome, diarrhea, alkaline gastritis, etc.).

Since Dragstedt's classical studies of the 1940s, it has been recognized that vagotomy plays a key role in most successful operations for ulcer disease. Vagotomy is effective because it reduces gastric hyperacidity by at least two mechanisms. There is a direct action by denervation of the parietal cells of the stomach, (main producers of hydrochloric acid), and an indirect effect due to decreased gastrin production by the antrum. In addition to vagotomy, various degrees of gastric resection and/or reconstruction have been designed. These serve to further control the antral phase of gastric secretion and secondly, to offset the gastric stasis, distension, and ulceration that results from denervation of the pyloro-antral pump by truncal vagotomy.

While we can expect that vagotomy and drainage or vagotomy and resection will control or even cure the patient with duodenal ulcer disease, this does not occur without a price being paid in a significant number of cases. This takes the form of altered gastrointestinal function and may be mild and transitory in many patients but in a significant percentage, there are severe and sometimes, disabling postoperative digestive disturbances.

Dumping (jejunal hyperosmolar syndrome), diarrhea, alkaline reflux gastritis, the afferent loop syndrome, marginal and recurrent ulceration, and malnutrition are often lumped together as postgastrectomy syndromes. They are, in fact, largely due to two

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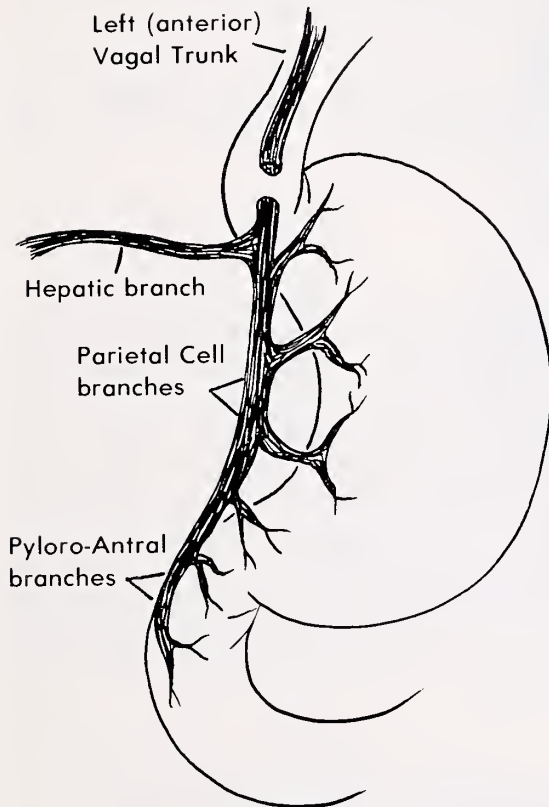
features of the various operations for duodenal ulcer disease.

1. Parasympathetic denervations of most of the digestive tract by truncal vagotomy.
2. Loss of the pylorus and hence, loss of control of gastric emptying and competency which results from gastric resection, gastroenterostomy, or pyloroplasty.

Many approaches to reducing these post-gastrectomy problems have been devised, and include modification of the extent of gastric resection (subtotal gastrectomy, hemi-gastrectomy, antrectomy), the type of reconstruction following resection, (gastroduodenostomy and gastrojejunostomy), or the form of the pyloroplasty, (Heineke-Mikulicz, Finney, and Jaboulay). Each of these techniques has its relative merit and success however, none of them fundamentally alter the consequences of truncal vagotomy and loss of the pyloroantral pump.

Many surgeons and gastroenterologists believe that a new operative approach may be necessary to solve these problems. We believe that the best currently available technique may well be parietal cell vagotomy (PCV), an idea whose time has finally arrived. This operation is also known as highly selective vagotomy and proximal gastric vagotomy, but regardless of what it is called, it differs strikingly from the standard truncal vagotomy (see Fig. 1.)

Figure 1



Truncal Vagotomy

Parietal cell vagotomy selectively denervates that part of the stomach most responsible for hydrochloric acid production but at the same time, spares the pyloroantral muscular function, the hepatic and biliary tree innervation, and the vagal innervation of the small and large intestines.

In theory, parietal cell vagotomy without drainage or gastric resection, should meet the requirements for any new surgical treatment directed at peptic ulcer disease. Namely, it should control the primary ulcer symptoms as well as or better than the usual operations, it should do this with the same or a lower operative mortality, and the incidence of postgastrectomy syndrome should be significantly reduced. From a practical standpoint, parietal cell vagotomy appears to fulfill all of these criteria. Optimistic reports have been occurring in the surgical literature since the early 1970s, and it now appears that we have enough studies to begin to draw some valid conclusions as to its effectiveness.

Figure 2



Selective Vagotomy

Hallenbeck showed in 1973, that parietal cell vagotomy effectively denervated the parietal cell area of the stomach and yet still permitted normal gastric emptying without the need for pyloroplasty. Furthermore, his studies argue against any significant vagal reinnervation following parietal cell vagotomy.¹

271 patients from Leeds and Copenhagen were operated upon electively for duodenal ulcer disease and had parietal cell vagotomies.² There were no operative deaths in this series. In two to four year followups, there were only two cases of significant gastric stasis, two gastric ulcers and three recurrent duodenal ulcers. In comparison to vagotomy and pyloroplasty or resection, parietal cell vagotomy showed a much lower incidence of dumping, diarrhea, and bile vomiting while at the same time, showed a greater degree of good results, in terms of patient satisfaction.

Figure 3



Parietal Cell Vagotomy

Kronborg and Madsen reported in 1975 a controlled randomized trial of parietal cell vagotomy versus selective vagotomy and pyloroplasty in the treatment of duodenal ulcer in a hundred patients.³ They, too, showed that the frequency of postgastrectomy side effects were much lower with parietal cell vagotomy than with the more usual duodenal ulcer operations. (Table I.)

INCIDENCE OF "POST GASTRECTOMY" SYNDROMES [3]

	Parietal Cell Vagotomy	Selective Vagotomy & Pyloroplasty
Dumping	6%	30%
Diarrhea	6%	20%
Epigastric fullness	8%	28%

In 1976, Jordan reported a prospective randomized study of 92 patients being treated for duodenal ulcer.⁴ He compared the results of parietal cell vagotomy with selective vagotomy, antrectomy, and Bilioth I. Again, there were no operative deaths. Diarrhea, dumping, and other gastric complaints were far less after parietal cell

vagotomy and only one recurrent ulcer occurred in that same group.

Parietal cell vagotomy without drainage or gastric resection is an operation which will have the lowest associated mortality and morbidity of operations currently available for the elective treatment of duodenal ulcer. We also believe the currently available evidence support our belief that parietal cell vagotomy will effectively control the ulcer symptoms with a minimum of postgastrectomy syndrome symptoms.

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The Myelodysplasia and Hydrocephalus Program in Nebraska: A 15 Year Review of Costs and Benefits*

Part II

Since mental ability is the most critical factor in self sufficiency, we first assessed the overall results by the school placement of the 138 survivors who are now over five years of age. As shown in Table 2, 75% of the M group are in regular classes within two years of their age appropriate grade, 16% are in special education classes implying an I.Q. of 60-80, and 9% are severely retarded. In contrast, only 46% of H are in regular classes, 19% are in special education, and 35% are severely retarded.

Table 2

School Placement — Children 5 and Older

	Myelodysplasia	Hydrocephalus
Normal	75% (70)	46% (22)
Special Education	16% (15)	19% (9)
Educable	2% (2)	4% (2)
Trainable	4% (4)	12% (6)
Institution	3% (3)	19% (9)
TOTAL	100% (94)	100% (48)

Table 3

Ambulation — Age 3 and Older

	Myelodysplasia	Hydrocephalus
Unassisted	35% (33)	60% (41)
Crutches/Braces	37% (35)	8% (1)
Chair/Bedfast	28% (27)	32% (20)
TOTAL	100% (95)	100% (62)

Ambulation (Table 3) in the group was evaluated in 157 children now 3 years of age or older. Of the M group, 35% are ambulatory without crutches or braces, 37% require crutches or braces, and 28% are chairbound; of the H group, 60% are ambulatory without assistance, but 32% are chair or bedfast secondary to cerebral damage.

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Virtually all the M children have significant urinary problems: 92% are incontinent, but 25% of these have had conduits and approximately 15% have achieved partial continence with dry periods of at least two hours by various techniques, primarily intermittent catheterization. Of the myelodysplasia children, all of whom have been followed with serial cystograms, pyelograms, and urine cultures, 21% show significant deterioration of the upper tract, independent of the level of paralysis, of the findings on x-ray studies before age one, and of surgical diversion.

These children also have a multiplicity of other problems as detailed in Table 4. Of the M children, 27% have uncorrected squint problems, 26% have abnormal head size, 12% have seizures and 11% have behavior disorders of which hyperactivity (5%) is the most common. In the H group, 53% have uncorrected squint problems, 53% have abnormal head size or shape, 42% have seizures and 25% have behavior disorders with hyperactivity again the most common problem (13%).

Prognostic Indices

The major indices predicting outcome for M are listed in Table 5. Much has been published in the last five years on selective criteria in the neonate that predict profound

*From the Alina Knipprath Memorial Birth Defects Clinic, Childrens Memorial Hospital; Department of Pediatrics and Meyer Children's Rehabilitation Institute, University of Nebraska Medical Center, Omaha, Nebraska.

Orthopedically, prognostic criteria can be applied with greater assurance. Children with losses extending up to the thoracic level have little effective ambulation, although they may achieve and maintain, despite adolescent obesity, the ability to transfer. They almost all have severe problems of kyphoscoliosis and secondary thoracic deformity. With lesions at L 1-2, none can walk without assistance, but 87% are ambulatory with crutches or braces. Of children with defects at L 3-5, 33% walk unassisted and 68% with mechanical assistance. Urologically, children with losses limited to S 4-5 have the best prognosis for partial continence but in this series, as in others,¹² are equally at risk for deterioration of the upper tracts.

Table 4

Major Medical Problems		
	Myelodysplasia	Hydrocephalus
Incontinence 1°	92%	28%
Untreated Incontinence	55%	28%
Recurrent seizures	12%	42%
Uncorrected squint	27%	53%
Abnormal head size	26%	53%
Behavior disorder	11%	25%
Hyperactive	5%	13%
Other	6%	12%

Table 5

Myelodysplasia		
Prognostic Indices of Retardation		
(Special Education, Educable, Trainable, Institutional)		
	% Retarded	Total N
	25%	94
Motor Loss		
None	35%	26
Lumbosacral	5%	51
Thoracic	59%	12
		89
Lacunar skull	20%	20
Cerebral mantle < 1 cm	75%	4
Meningitis	21%	19
Number of shunts		
0	5%	41
1 - 4	42%	33
5 - 9	28%	14
> 10	33%	6

94

disability.⁸⁻¹² Moderately severe retardation (I.Q. below 60) can be predicted for the majority, but not all, of infants who have

large heads at the time of birth — 80% in Lorber's series,⁸ cerebral mantle below 1 cm — 69% in Lorber's group⁸ and 75% of our patients; lacunar skull on x-ray in the first three months of life — 79% according to Lorber,⁸ but only 20% in this group — and meningitis. In the M group, there was subsequent retardation in 59% of children with thoracic level motor loss, but only 5% of those with lumbosacral dysplasia. Of M children not requiring shunts for hydrocephalus, only 5% are retarded. The outcome in shunted children is independent of the number of revisions required, with normal intelligence in two-thirds of M children who have had from 10 to 26 shunt procedures.

Discussion

Although medical care for children with myelodysplasia-hydrocephalus costs at least \$21,000 for the first eight years of life, this is less than the \$22,265 it currently costs to provide just one year of custodial care for the profoundly handicapped child.

The socio-familial costs, as documented in the Nebraska program, appear uniquely low. The overall rate of relinquishment (7%) is lower than the rates reported for an otherwise comparable series from Philadelphia.¹³ The divorce rate of only 6% supports the concept that the "burden" of a handicapped child can be ameliorated by a comprehensive program of financial, medical, educational, and social support.

The multihandicapped child poses a considerable challenge to educators, but 75% of the myelomeningocele children and 46% of those with treated hydrocephalus are integrated into regular classes. This percentage should increase with the federal requirements for mainstreaming of handicapped children. Although motor disabilities pose problems, our responses from the schools indicate that these cause far less difficulty than incontinence, behavior disorders and learning disabilities, all of which are major concerns in current therapeutic programs.¹⁴

The incidence of severe disability in survivors can obviously be decreased by the employment of selective criteria in the neonate as the basis for a decision for

treatment or non-treatment. Additional decreases in disability are possible if myelodysplasia can be accurately predicted by routine prenatal screening of the alpha-feta protein level of maternal sera.¹⁴ The Nebraska series is here presented as a representative index of the current medical and social costs and outcome of non-selective treatment by a comprehensive state wide program.

Acknowledgments

The support and interest of Douglas Campbell, Director of The Nebraska State Birth Defects Prevention Program and the cooperation of Kathy Schleich, Assistant Administrator, Childrens Memorial Hospital are gratefully acknowledged. Pamela Hochster shared the actual task of chart analysis. Programming and statistical analysis was by Richard Wikoff, Ph.D., Department of Psychology, University of Nebraska at Omaha. Research assistance was provided by Marilyn Schlicht.

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SIDS in Nebraska: Families in Crisis*

INTRODUCTION

SUDDEN Infant Death Syndrome (SIDS) has long been a concern of the medical profession, and, by recent estimation,¹ 73 theories have been generated to account for its etiology. As late as July, 1975, however, the still existing void regarding the mental health aspects of SIDS was noted by national authorities on the subject convening in Kansas City.²

In this article, the results of our first year's investigation of the psychological effects of SIDS on surviving family members will be reported. The study was done in cooperation with the Nebraska State Department of Health Division of Maternal and Child Health.

Every child's death has been investigated, from one week to one year of age in the state of Nebraska since January 1, 1973. An effort was made to contact by telephone each parent of a child whose death was attributed to SIDS between January 1, 1973 and June 1, 1975.

Sixty-three cases were identified, but only 50 individual parents could be reached. The rest had moved from their home towns within six months and 2½ years of the death of the child. All 50 parents contacted agreed to fill out a 13-page questionnaire, the basis for the results which follows; 33 completed questionnaires were returned.

RESULTS

This group of SIDS parents unanimously rated SIDS as the most severe crisis they had ever experienced in their lifetimes, including other deaths, divorce, separation, illness, and alcoholism.

It took the parents an average of 15.9 months to regain the level of personal happiness they felt they had held before the death, and it took the parents 8.3 months to regain the level of family organization (how smoothly the family functions) they felt they had held before the death.

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There was no significant relationship or difference ($p < .05$) between recovery time and the following variables: residency on a rural/urban continuum, church activity, membership in social organizations, number of personal friendships, prior knowledge of SIDS, or whether or not an autopsy was performed. The present study does, however, support the hypothesis that as income increases personal recovery time decreases: higher income is associated with relatively quicker recovery.

Sixty-nine percent of the parents suffered personal guilt; many considered these guilt feelings severe, even though no one can reasonably be held culpable for such a death. At least half of the parents often or nearly always suffered the following physical and/or psychological difficulties during the crisis: trouble sleeping; nervousness, feeling fidgety and tense; loss of appetite; and difficulty getting up in the morning.

For most of the parents, relationships with spouses, children, and grandparents were generally strengthened in the long run after the crisis. The parents turned to their families first for support, and quite often received that support. Only 22 percent of the parents stated there was no difference in the behavior of their remaining children. Other parents, however, indicated the following changes in behavior: nightmares, bed wetting, school problems, discipline problems, crying a lot, blackout spells, very quiet, and overprotection of the parents.

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Sixty-nine percent of the parents felt the general public's being better informed about SIDS would have helped them during the crisis. One parent stated that the police who were called to the house at the time of the death "treated us as criminals." Parents referred to the cool reaction on the part of friends and relatives; one stated the family did not receive even one sympathy card from relatives.

DISCUSSION

This article reports an initial effort to consider the crisis resulting in families after a SIDS death has occurred. The sample is small and necessarily not representative of even all SIDS parents in the state of Nebraska. But sampling difficulties may reflect the crisis itself, as a surprisingly large percentage of the parents could not be

contacted by telephone after only six months to two and a half years from the death.

Professionals would be well-advised to move swiftly yet cautiously to offer educational and counseling services to the immediate family members. And, following the prescriptions of the parents themselves, the professional community would continue to educate the general public, which in some of the parents' perceptions, has cast a disapproving eye.

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Down Memory Lane

1. In 1927, we have the one hundredth anniversary of the birth of Sir Joseph Lister.

2. The personal contact between a doctor and his patient is not paralleled by that of any other profession.

3. The average life span in the 16th century was 20 years and in 1845 it had jumped to 40 years. In 1875 to 45 years and now the average life expectancy is 58 years. When Lincoln was president 20 babies out of every 100 died before one year had passed and now only 10 die.

4. Enrollment in the country's eight medical schools has increased fifty per cent in eight years.

5. Nobody can comply with present speed laws.

6. There are good prospects for a Lutheran hospital, costing about \$180,000, at Fremont.

7. Tuberculous peritonitis is almost invariably secondary to lesions elsewhere in the body.

8. Continual observation makes one more adept at spotting the malingerer.

9. Since there is nothing in the process of gaining a medical education that makes an honest man out of a dishonest one, it might be well to examine the prospective student carefully as to his moral and spiritual qualifications.

10. Before the use of antitoxin one of the most heart-rending of human experiences was to stand by the bedside of a child, a few hours before in the fullness of vigorous youth, and see that child dying of asphyxiation from "membranous croup," as it was then known, or of toxemia, conscious to the last moment.

Nebraska State Medical Journal
November, 1927

President's Page

TESTIMONIALS — BAH!

What happened to the days when a doctor graduated and hung out his shingle? People would walk down the street and say "that's Doc's office." What a great form of advertising. Can't recall ever hearing a patient saying he didn't get medical care because he didn't know there was a doctor in town or where his office might be. For years we have relied on simple form of advertising. Now it has to get complicated.

The supreme court indicates we are restraining trade by not allowing full scale advertising. What do they think they will make us do by advertising, start a "gas war" type of price cutting or make foolish claims in advertising? All they can do is make the total package of medical costs go up because advertising is expensive. The more advertising the more the patient has to eventually pay and what need is there for medical advertising? It's not like seeling ice boxes to eskimos, the demand is already there for medical care and everybody knows where he wants to get it.

As indicated advertising is not new, we have been able for years to put our name along with our category of medical care in the yellow pages. Do we really want it in the newspapers, radio, and possibly TV? Where will it stop? Where will the point be that advertising stops and soliciting begins with statements of cheaper, better, quicker results, guarantees and all kinds of come on slogans, jingles and gimmicks that will

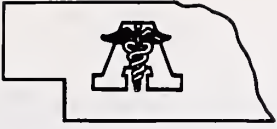


degrade our profession. Heaven forbid if testimonials are allowed.

As physicians, let's not be caught in this soliciting trap. If committed by laws to advertising by solicitation I hope it would be so few that the main body of our medical society could overshadow the doubt and suspicion engendered by what in the past, was called unethical advertising.

Let our care of patients do our advertising, the word of our good care spreads rapidly and won't cost a cent except careful, considerate and conscientious care of our best advertiser, the patient. We don't have a problem of selling our product. Everyone knows we are ready to take care of them.

Arnold W. Lempka, M.D.



The Auxiliary

REPORT OF MRS. F. WILLIAM KARRER FIRST VICE-PRESIDENT NMA

In Chicago on August 15th and 16th, four Nebraska Auxilians attended a "Membership/Project Bank" Workshop. In attendance for Nebraska were Mrs. F. William Karrer, Omaha, Nebr., Mrs. John Feagler, Omaha, Nebr., and Mrs. Roger Meyer, Utica, Nebr. representing the membership team. Mrs. Palmer Johnson, Lincoln, Nebr. served as the Project Bank delegate.

The purpose of the meeting was membership recruitment and retention, as these areas are of prime concern to auxiliaries throughout the country. The interaction of program areas and membership recruitment were recognized as essential to build a strong organization.

The state and county delegates met in small groups. Discussions included:

1. Organizing new auxiliaries
2. Processing membership and data
3. Attracting the medical students and house officers wives
4. Comparing membership surveys
5. Sharing personal contact approaches
6. Welcoming new wives and foreign doctors wives
7. Encouraging state dual roster publication
8. Evaluating worth of year end awards
9. Dropping various membership categories
10. Conducting leadership training seminars
11. Orienting new members to auxiliary purposes
12. Availability of resource materials
13. Appreciating the values of national membership

All of these topics were discussed, views being expressed from a cross-section of the country, broadening ones outlook and attitudes.

Highlighting the workshop were two outstanding speakers, John J. Courty, M.D., AMA Board of Trustee Member and William J. Mangold, M.D., Jr. Vice Chairman Resi-

dent Physician Member AMA Council on Legislation. Mrs. Chester L. Yound, AMAA President introduced Dr. John J. Courty. His remarks dealt with the political dollar, malpractice, production liabilities and hospital cost legislation. He further covered the credibility of the AMA, the advantages of membership including the Keogh Plan and incorporation and the necessity of keeping your legislator informed. Mrs. Hoyt D. Gardner, 1st V.P., AMAA, presented Dr. William J. Mangold. "How to Attract Young Physicians Spouses" was his timely subject. The key being, that the young wife must be able to identify, to have meaningful input if they are to be active and a dedicated cause they can pursue. He suggested soliciting their membership while still young activists women.

We returned home inspired and spent. The pace was fast and excellent. It was a worthwhile experience.

Sincerely,
Mrs. F. William Karrer
First Vice President NMAA
Membership

REPORT OF MRS. JOHN FEAGLER GREATER OMAHA MEDICAL SOCIETY AUXILIARY COUNTY MEMBERSHIP CHAIRMAN

The AMA Auxiliary Membership workshop held in Chicago August 15 and 16 was an invaluable learning experience. Soliciting memberships for the Auxiliary along with the AMA itself is a primary target for both organizations. To implement the solicitations, several brainstorming sessions provided new ideas and approaches in gaining and keeping auxiliaries. Hopefully, the information we compile will be of help during our upcoming Membership Drive.

Sincerely,
Mrs. John Feagler
County Membership Chairman-Omaha

REPORT OF MRS. ROGER MEYER DISTRICT COUNCILOR #6 AND SEWARD COUNTY DELEGATE

The membership workshop held in Chicago last August 15 and 16 was a unique experience for me. It not only afforded me

the opportunity of hearing how other auxiliaries propose and carry out their projects and how they conquer their problems but also I had the pleasure of meeting other Doctors wives and making new and renewing friendships.

Since membership seems to be a big problem for AMA as well as Medical Auxiliary, our group discussed many ways to find interest and keep members in our organization. As one of our special AMA speakers pointed out, we need to offer projects that produce individuality and im-

mediate involvement. Our legislative project would be a good example.

Ideas on welcoming new members, how to find new Doctors that have recently moved into your district and the collection of dues procedure were other things we shared.

We all need to back the AMA and Auxiliary in a time that a positive public image is important to our welfare as a nation and ourselves.

Sincerely,
Mrs. Roger Meyer
District 6 Councilor NMAA

Picture Gallery

1977 NMA FALL SESSION



Nebraska Medical Political Action Committee Seminar, Doctor John D. Coe, Chairman of Nebraska MEDPAC, presiding.



Doctor George T. Wilkins, Member AMPAC Board of Directors and President of the Illinois State Medical Society, addressing Seminar audience.



Mr. Peter B. Lauer, Political Education Coordinator of AMPAC, addressing Seminar audience.



Mrs. Linda Hudson, Assistant to the Director of AMPAC, addressing Seminar audience.



Mr. Roy Pfautch, Political Consultant and President of Civic Service, Inc., St. Louis, Missouri, addressing Seminar audience.



Doctor Arnold W. Lempka congratulating Doctor Carlyle E. Wilson Jr. upon his election as Chairman of the Board of Councilors.

Picture Gallery

1977 NMA FALL SESSION



Doctor Arnold W. Lempka addressing the Board of Councilors.



Doctor Carlyle E. Wilson, Jr. presiding at the Board of Councilors.



Seminar audience



Board of Directors meeting during 1977 Fall Session.

Our Medical Schools

Continuing education.

"First Two Years of Life and Early Identification of Developmental Disabilities" will be offered at the Center for Continuing Education of the University of Nebraska Medical Center Thursday and Friday, December 1 and 2.

Course Coordinators are Dr. James J.

Leahy, assistant professor of family practice, and Dr. Donald Wuori, assistant professor of pediatrics.

The registration fee is \$70 for physicians and \$50 for other health professionals.

The course is sponsored by the Meyer Childrens Rehabilitation Institute and will feature several members of its staff of allied health professionals.



Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

- **Most Widely Prescribed**—Antivert is the most widely prescribed agent for the management of vertigo* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.
- **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo.*
- **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

***INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg/kg/day in rabbits and 10 mg/kg/day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG 
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert[®]/25 
(meclizine HCl) 25 mg. Tablets
for vertigo*

TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE **DYAZIDE®**

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

MAKES SENSE

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

Warning

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children not available.

Precautions: Do periodic serum electrolyte determinations, particularly important in patients vomiting excessively or receiving parenteral fluids.

Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+ . Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis.

'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions:

Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions;

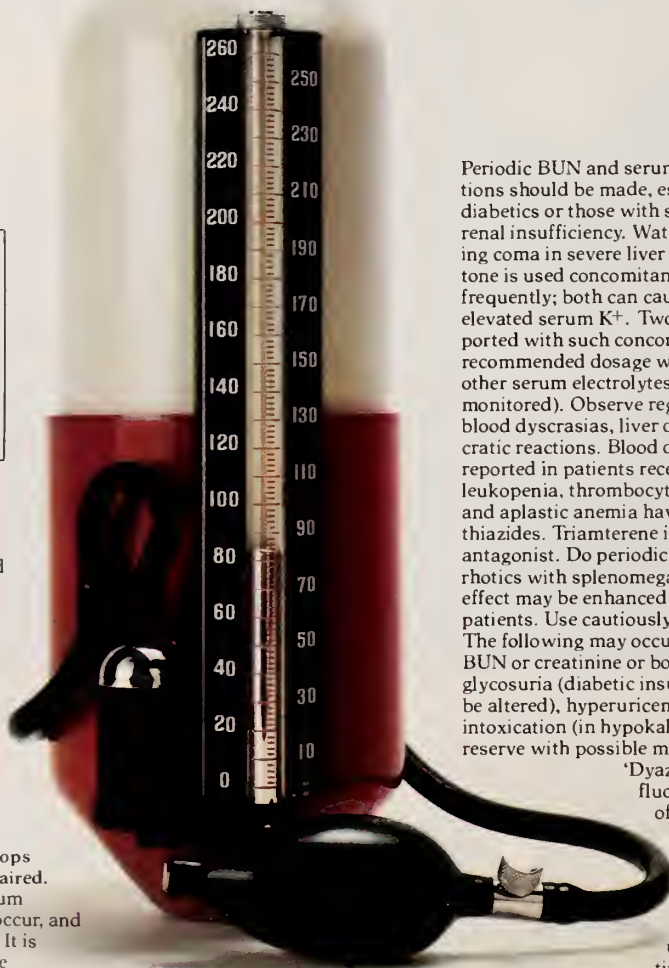
nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

**FOR LONG-TERM CONTROL
OF HYPERTENSION*
SERUM K^+ AND BUN SHOULD
BE CHECKED PERIODICALLY.
(SEE WARNINGS SECTION.)**

SK&F CO., Carolina, P.R. 00630

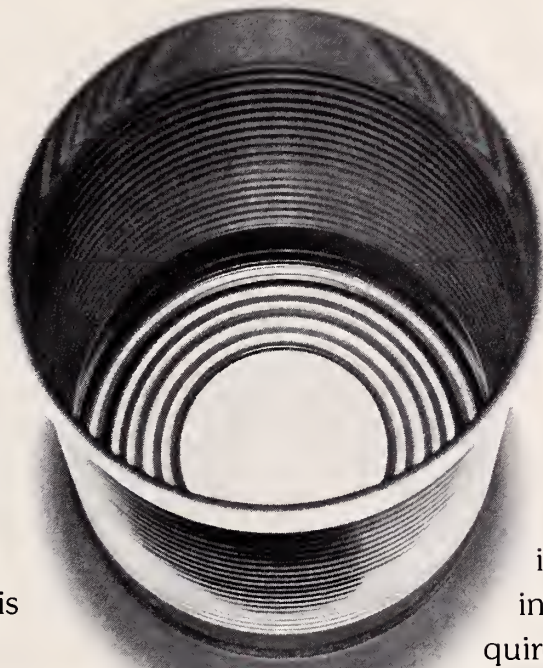
SK&F CO.
a SmithKline company



NOW a two-piece 14oz. can for Soyalac

A two-piece can means no soldered seam. No solder means no possibility of lead contamination from the container. Soyalac is the first infant formula with this packaging innovation.

There are improvements, too, in the formulation. Soyalac now has 25% more iron than known competitive hypoallergenic milk-free formulae. In fact, the entire formula has been slightly modi-



fied to reflect the current U.S. RDA levels set by the Food and Drug Administration.

Soyalac — formula for infants on regular feeding and for those who require milk-free diets; concentrate and single strength, ready-to-use. Made from the whole soybean. I-Soyalac concentrate, made from soy isolate, with no soy carbohydrates and **no corn products.**



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B.W.CO. HAS PUT MORE POTENCY IN THE LINE



EMPRACET® with Codeine Phosphate, 60 mg, No. 4 Ⓒ

EMPRACET® with Codeine Phosphate, 30 mg, No. 3 Ⓒ

CONTRAINDICATIONS: Hypersensitivity to acetaminophen or codeine.

WARNINGS: **Drug dependence.** Codeine can produce drug dependence of the morphine type and may be abused. Dependence and tolerance may develop upon repeated administration; prescribe and administer with same caution appropriate to oral narcotics. Subject to the Federal Controlled Substances Act.

Usage in ambulatory patients. Caution patients that these products may impair mental and/or physical abilities required for performance of potentially hazardous tasks such as driving a car or operating machinery.

Interaction with other CNS depressants. Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) may exhibit additive CNS depression; when used together reduce dose of one or both.

Usage in Pregnancy. Safe use is not established. Should not be used in pregnant patients unless potential benefits outweigh possible hazards.

PRECAUTIONS: **Head injury and increased intracranial pressure.** Respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal condition. These products or other narcotics may obscure the diagnosis or clinical course of acute abdominal conditions.

Special risk patients. Administer with caution to certain patients such as elderly or debilitated patients and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, or prostatic hypertrophy or urethral stricture.

ADVERSE REACTIONS: Most frequently include lightheadedness, dizziness, sedation, nausea, and vomiting; more prominent in ambulatory than in nonambulatory patients; some may be alleviated if patient lies down; others include: euphoria, dysphoria, constipation and pruritus.

DRUG INTERACTIONS: CNS depressant effect may be additive with that of other CNS depressants. See Warnings.

For symptoms and treatment of overdosage and full prescribing information, see package insert.

Introducing **EMPRACET®** **Ⓒ CODEINE #4**

Each tablet contains: codeine phosphate, 60 mg (1 gr) (Warning—may be habit-forming); and acetaminophen, 300 mg.



Our new non-aspirin/ codeine analgesic for moderate to severe pain.

New peach-colored Empracet Ⓒ Codeine #4 offers a potent alternative for patients in whom aspirin is not indicated.

Unlike compounds containing oxycodone which afford comparable analgesia, new Empracet Ⓒ Codeine #4 gives you CIII prescribing convenience—up to 5 refills in 6 months at your discretion (where state law permits). And, prescribing by telephone is permissible in most states. Moreover, new Empracet Ⓒ Codeine #4 has less addiction potential than does oxycodone.

For those of your patients requiring a less potent analgesic, non-aspirin Empracet® Ⓒ Codeine #3 provides effective relief of moderate pain.

Burroughs Wellcome Co. makes codeine combination products. You make the choice.



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State Chairman, Health Galleries
Fund Raising Committee
Nebraska Medical Association Auxiliary

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P.O. Box 30186
Lincoln, Nebraska 68503.

Make check payable to:
Health Galleries, account 429.

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Total cost of the Health Galleries Project \$500,000.00
Goal for support from Medical Community 150,000.00*

*House of Delegate action October 1976

47% of the \$150,000.00 has been raised through contributions
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All monies raised will be used for the development of the
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(Continued on next page)



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Between Cases

Section On Anatomy.

In the young wine goes to the head, in
the aged it goes to the feet.

Anon.

Department Of Pain.

After much pain, respectability becomes
ludicrous.

E. M. Forster: The eternal moment.

Have You Noticed?

Dollar bills are getting dirty.

On Glands And Mental Health.

We'll have to take a look at the paranoids.

Supposed to have been said by a
surgeon to a patient who was depressed
after thyroidectomy.

The Report.

Nervous left foot.

Nevus?

The Specialist.

A specialist-friend said his neighbor had a
tomcat that howled every night to say
how good he was. And one day the
consultant said he hadn't heard the cat
for a while. The neighbor said the cat
had been neutered, and that he still goes
out, but only as a consultant.

Anon.

Postgraduate Gems.

No patient was ever cured by a laboratory
report.

Anon.

The Diagnosis.

Nonspecific abdomen.

The Physical.

This gentleman is profoundly ill and seems
quite comfortable insane.

Words I can Do Without.

Screennee, critique, itinerary, desideratum,
interestingly.

O To Be In England.

The National Health Service was born and
bred into a monster exquisitely resistant
to change.

Lancet 2/19/77:417.

Department Of Advice And Research:

Whenever you can, count.

Sir Francis Galton.

Gems From A Question And Answer Column.

There is no simple answer to this question.

Section On Change In Physical Condition.

Was severe, now marked; or the other
way around.

Heard While Passing A Desk.

Yes, there isn't.

—F.C.

Books



Handbook of obstetrics & gynecology; by Ralph C. Benson, M.D.; 772 pages; \$9.50 limpcover; 6th edition; published 1977 by Lange Medical Publications, Los Altos, California.

This book first appeared in 1964; it has now been translated into four foreign languages. It is divided into 29 chapters, and of course into obstetrics and gynecology. I could find no references, but there is an appendix and an index; there are many figures.

O & G will fit nicely into a house officer's whitecoat pocket and easily between bookends on your shelf or desk. It is easy reading, and of course it is up-to-date. The author is clinical professor and emeritus chairman at the University of Oregon Health Sciences Center.

It is recommended.

Chronic obstructive pulmonary disease; COPD Manual Committee of the Oregon Thoracic Society; 1977; American Lung Association, 1740 Broadway, New York, N.Y. 10019.

This is the fifth edition of the book. It is divided into

nine chapters, including anatomy and physiology, clinical features, treatment, prognosis, function tests, blood gas determinations, and others. There is a good index, and there are pictures and tables.

The Omaha or state office address is Oak Park Plaza, Suite 212, 7363 Pacific. The branch office is: 321 Lincoln Center Building, Lincoln. Or call Omaha at 393-2222; Lincoln at 432-5646, and get the book.

—F.C.

The doctors and patients handbook of medicines and drugs; by Peter Parish, M.D.; 412 pages; \$5.95 paperback; published September, 1977 by Alfred A. Knopf, Inc., New York.

This book comes between us and our patients; it may be a little elementary for you, but not by much, and just a wee bit technical for them, but not by a whole lot. It is divided into three parts: principles of drug use; drug groups (there are 42 categories); and pharmacopeia, containing 1,500 entries, they say.

I found everything I looked for, including a new drug incompatibility and an up-to-date review of oral antidiabetic drugs. There are no references I could find, not tables or figures, but it is not that kind of a book. There is a good index, and the drugs are listed alphabetically in the last section, with a description of effects, dose, side effects, and trade and generic names.

I liked it. Dr. Parish is renowned and is British.

—F.C.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —

November 5 — Hartington, Trinity Lutheran Church
December 3 — North Platte, Elks Lodge
December 10 — Grand Island, Nebraska Veterans Home

AMERICAN MEDICAL ASSOCIATION —

Interim Session, House of Delegates, December 4-7, 1977, Palmer House, Chicago, Illinois.

NEBRASKA OBSTETRIC GYNECOLOGIC SOCIETY —

24th Annual Scientific Session; Frontier Hotel, Las Vegas, Nevada; December 8, 9, & 10, 1977. Write to: Dennis Beavers, M.D.; Secretary-Treasurer, N.O.G.S., 8552 Cass Street, Omaha, Nebraska 68114.

NEBRASKA OBSTETRIC GYNECOLOGIC SOCIETY (NOGS) —

Annual Scientific

Session; Frontier Hotel, Las Vegas, Nevada; December 8-11, 1977. Write to: Dr. Dennis Beavers, Secretary-Treasurer, 8552 Cass Street, Omaha, Nebraska 68114.

AMERICAN MEDICAL ASSOCIATION —

Winter Scientific Program, December 10-13, 1977, Miami, Florida.

NEBRASKA MEDICAL ASSOCIATION

ANNUAL SESSION — April 30 - May 3, 1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION —

Annual Convention, June 17-22, 1978, St. Louis, Missouri.

NEBRASKA MEDICAL ASSOCIATION

FALL SESSION — September 21-23, 1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

Welcome New Members

James K. Anthony, M.D.
630 North Cotner
Lincoln, Nebraska 68505

Ali Iffat, M.D.
Oxford Clinic
Oxford, Nebraska 68967

Dennis P. Goeschel, M.D.
1720 - 10th Street
Gering, Nebraska 69341

Physicians' Classified

PSYCHIATRIC RESIDENCE: Vacancies for position for January 1, 1978, for those who have a regular Iowa license or can obtain one by reciprocity or via FLEX. Prepare for career in private practice, community clinics or hospital-based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. The stipends are: 1st Year: \$22,360; 2nd Year: \$23,478; 3rd Year: \$24,674. Intensity and diversity of training program appreciated best by personal visit. T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal Opportunity Employer. Call Collect: 712-225-2594.

FAMILY PHYSICIAN — Opportunity to join six-man group in beautiful Northwest Iowa. New clinic building of 10,000 square feet is located next door to 88-bed county hospital. Unusually progressive community of 10,000 offers 3,000 acre lake, 85 acres of parks and recreation, local liberal arts college, and many family interest features. Generous salary with incentive, malpractice insurance, liberal vacation and seminar time, partnership in one year. Contact: D. A. Pritchard, Administrator, Buena Vista Clinic, 620 Northwestern Drive, Storm Lake, Iowa 50588.

EXPERIENCED EMERGENCY ROOM PHYSICIAN needed immediately in a modern 208-bed general hospital with complete facilities. Excellent starting salary with four weeks paid vacation and education support benefits for 40-hour week. Pleasant midwestern location with 176,000 population. Contact: Carl I. Maltas, Associate Director, Patient Services, St. Elizabeth Community Health Center, 555 South 70th Street, Lincoln, Nebraska 68510.

WashingtonNotes

The health bills.

Burdened heavily with Administration energy proposals and tax reform measures the first session of the 95th Congress staggers toward adjournment with a number of important health bills still far from resolved.

Among these important health bills are: The Hospital Cost Containment Plan, the Health, Education and Welfare Appropriation, a sweeping overhaul of Federal Drug Administration procedures, Medicare and Medicaid amendments, new federal controls over clinical laboratories, aid for rural health clinics, guidelines for genetic research, easing required U.S. medical school admission of foreign medical graduates, postponing the proposed saccharin ban, amending the black lung and renal disease programs, expanded aid for maternal and child health care, continued higher pay for federal and military physicians and excuse from income tax of federal medical scholarship income.

However, the Medicare-Medicaid anti-fraud and abuse bill has won overwhelming House approval on the way to expected final passage this year. Stricken from the measure was a provision to guarantee medical records privacy.

The bill, cleared by a 362-5 vote, vaults Professional Standards Review Organizations (PSROs) into major monitoring bodies to detect fraud and abuse in federal health programs.

The legislation also directs HEW to develop ambulatory care review methodologies for PSRO use; directs HEW to require capable PSRO's to undertake ambulatory care review within two years after designation as a PSRO; makes "competent" PSRO reviews of services conclusive for purposes of federal payment, if the PSRO has entered into a memorandum of understanding.

How many beds should we have?

Hew has issued detailed guidelines for

health planners that included a goal of fewer than four hospital beds per 1,000 population.

"The guidelines will help put brakes on construction of new hospital bed space and high-cost specialty services such as open-heart surgery and computerized x-ray scanning," said HEW Secretary Joseph Califano.

Regional Health Systems Agencies, provided in the Health Planning Law and challenged in court by the American Medical Association, not only are told to aim for a four per 1,000 bed ratio, but in later years "will be required to indicate how they will reach a bed population ratio of 3.7 per 1,000," according to HEW.

The current national average is 4.4 beds per 1,000 population. The reductions proposed by HEW would eliminate some 100,000 beds of the present one million beds over the next seven years.

A spokesman for the American Hospital Association commented that the proposals were too detailed and would provide less flexibility for local planning agencies if Congress grants HEW the power to put them into effect.

However, three members of the Senate Human Resources Subcommittee on Health — Sens. Edward Kennedy (D-Mass.), Jacob Javits (R-N.Y.), and Richard Schweiker (R-PA) — wrote Secretary Califano that they were "pleased that HEW has 'bitten the bullet.'" The time has come, they said, "to set numerical standards."

If the recommendations were accomplished, HEW officials said, the nation would save more than \$2 billion annually.

In addition to the number of beds and occupancy rate recommendations, here is what the proposed regs set forth:

****Obstetrical services:** there should be at least 2000 deliveries annually in an obstetrical unit located in an area with a population of 100,000 or more and at least 500 deliveries in any unit located in an area with a smaller population.

"In view of declining birth rates and the mounting under-utilization of obstetrical beds, obstetrical standards for the minimum number of deliveries and occupancy rates are designed to discourage unnecessary duplication and inappropriate proliferation of services, and to maintain quality of care," said HEW.

****Pediatric inpatient services:** there should be a minimum of 20 beds in a pediatric unit, except in rural areas.

Pediatric units should maintain average annual occupancy rates related to the number of pediatric beds (exclusive of neonatal intensive care units) in the facility. For a facility with 20-39 pediatric beds, the average annual occupancy rate should be at least 65 percent; for a facility with 40-79 pediatric beds, the average annual occupancy rate should be at least 75 percent; for facilities with 80 or more pediatric beds, the average annual occupancy rate should be at least 80 percent.

****Neonatal intensive care units:** the total number of neonatal intensive care beds should not exceed four per thousand live births per year in a defined neonatal service area. A single neonatal intensive care unit should contain a minimum of 20 beds.

****Open-heart surgery:** there should be a minimum of 200 procedures performed annually in any institution in which open-heart surgery is performed. No new open heart units should be opened unless each existing or previously approved unit in the health service area (or areas) to be served is operating and is expected to continue to

operate at a minimum of 350 open-heart surgery cases per year.

****Cardiac catheterization:** there should be a minimum of 300 procedures (intracardiac and/or coronary artery catheterization) performed annually in any adult cardiac catheterization unit plus a minimum of 150 cardiac catheterizations performed annually in any pediatric cardiac catheterization unit. No new cardiac catheterization units opened in any facility not performing open-heart surgery. No new adult cardiac catheterization units opened unless the projected number of studies per year is greater than 500.

****Radiation therapy:** a megavoltage radiation therapy unit should serve a population of at least 150,000 persons or at least 450 new cancer cases per year. No new megavoltage units opened unless each existing or approved megavoltage unit in the Health Service Area(s) is performing and is expected to continue to perform at least 7,500 treatments per year.

****Compute tomographic scanners:** computed tomoner (head and body) should operate a minimum of 2,500 patient procedures per year. There should be no CT scanners approved unless each existing or approved CT scanner in the service area is performing at a rate greater than 4,000 patient procedures per year.

****End-stage renal disease:** the health systems plans established by Health Systems Agencies should be consistent with standards and procedures contained in the HEW regulations governing conditions for coverage of suppliers of end-stage renal disease services.

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"Forceps . . ."

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days



- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice

- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (Federal Register, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
		Teaspoonfuls	Tablets
lbs	kgs		
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the BactrimTM

3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of

Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has no significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

BALCONY

*The Nebraska
Medical
Journal*

THE
NEW YORK
NY 10029

December, 1977

A character all its own.



Valium (diazepam) is a benzodiazepine with a character all its own.

Pharmacologically, it has been described as more potent mg-per-mg than other available anxiolytic benzodiazepines. Pharmacokinetically, only Valium provides active *diazepam* as well as the active metabolites 3-hydroxydiazepam, desmethyldiazepam and oxazepam.

But the individual character of Valium is even more apparent clinically than pharmacokinetically. And far more significant. That's because of the patient response obtained with Valium. A response which brings a calmer frame of mind. A response which has a pronounced effect on the somatic symptoms of anxiety, particularly muscular tension. A response which helps the patient feel more like himself again because of the way Valium reduces the overwhelming symptoms of anxiety and psychic tension.

Another important aspect of the clinical character of Valium is safety. Though drowsiness, ataxia and fatigue are possible, these and more serious side effects are rarely a problem. Of course, as with all CNS-acting drugs, patients taking Valium should be cautioned against driving, operating dangerous machinery or the simultaneous ingestion of alcohol.

Unquestionably, many psychotherapeutic agents, including other benzodiazepines, have antianxiety effects. But one fact remains: you get a certain kind of patient response with Valium. It's a response you want. A response you know. A response you trust as part of your overall management of anxiety and psychic tension.

Valium[®] (diazepam)^{IV}

2-mg, 5-mg, 10-mg scored tablets
a prudent choice in psychic
tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
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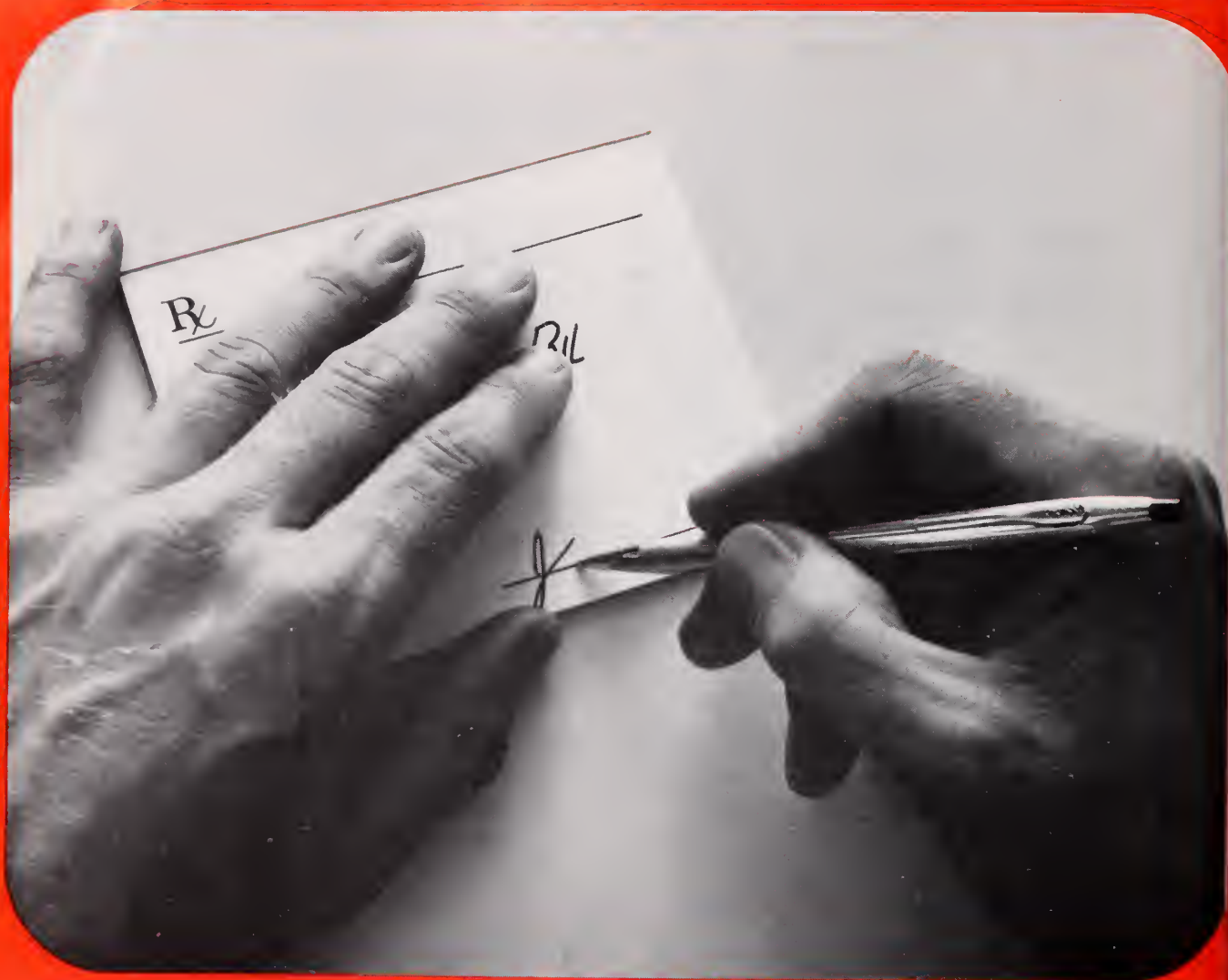
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Contraindications: Anuria; hypersensitivity to this or other sulfonamide-derived drugs.

Warnings: Use with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. Cumulative effects may develop in patients with impaired renal function. Use with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma. May add to or potentiate action of other antihypertensive drugs; potentiation occurs with ganglionic or peripheral adrenergic blocking drugs. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possibility of exacerbation or activation of systemic lupus erythematosus has been reported. Lithium generally should not be given with diuretics because they reduce its renal clearance and add a high risk of lithium toxicity. Read circulars for lithium preparations before use of such concomitant therapy.

Use in Pregnancy: Thiazides cross placental barrier and appear in cord blood; in pregnancy, weigh anticipated benefit against possible hazards to fetus, including fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions that have occurred in adults.

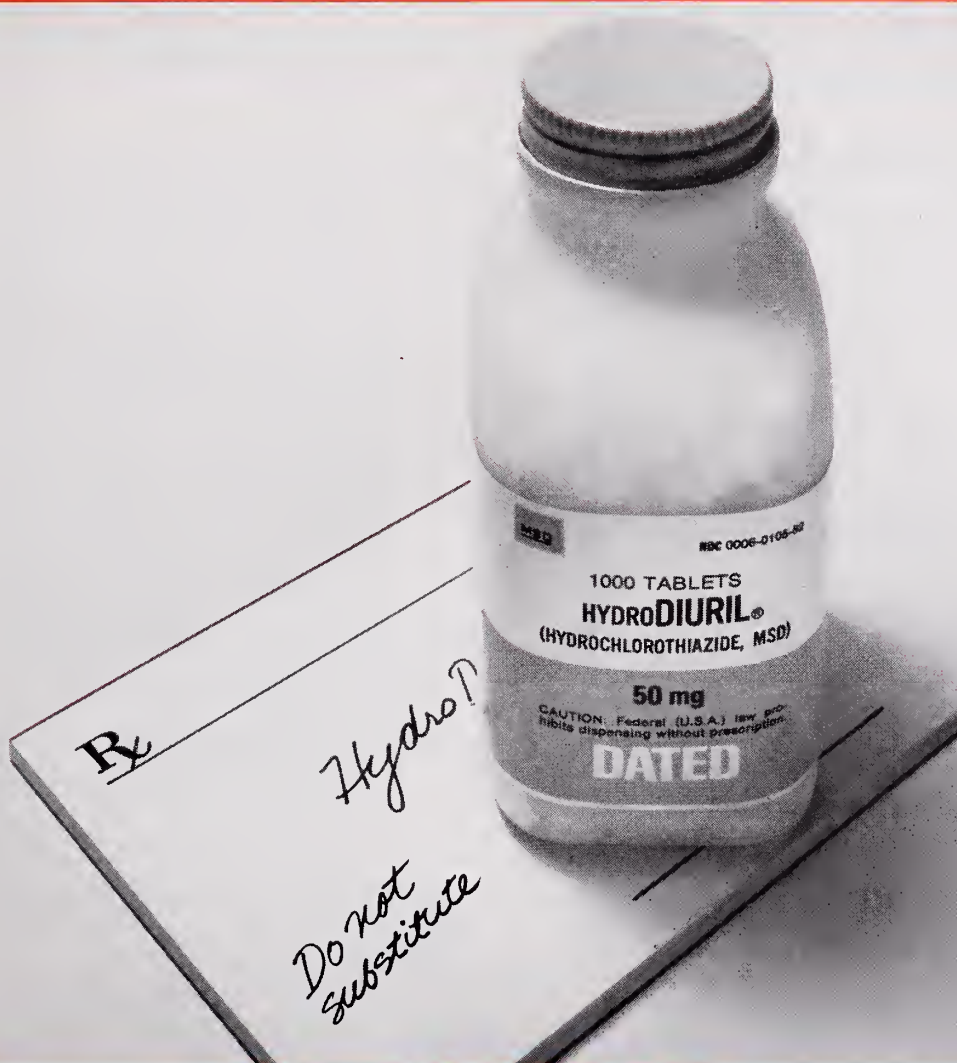
Nursing Mothers: Thiazides appear in breast milk; if use of drug is deemed essential, patient should stop nursing.

Precautions: Perform periodic determination of serum electrolytes to detect possible electrolyte imbalance. Observe all patients for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when patient is vomiting ex-

cessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting. Hypokalemia may develop, especially with brisk diuresis in severe cirrhosis, with concomitant corticosteroid or ACTH therapy, or with inadequate oral electrolyte intake. Hypokalemia can sensitize or exaggerate response of heart to toxic effects of digitalis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content. Any chloride deficit is generally mild and usually does not require specific treatment except under extraordinary circumstances (as in liver disease or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt except in rare instances when the hyponatremia is life threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients. Insulin requirements in diabetic patients may be increased, decreased, or unchanged; latent diabetes mellitus may become manifest. Thiazides may increase responsiveness to tubocurarine. Antihypertensive effects of the drug may be enhanced in post-sympathectomy patients. May decrease arterial responsiveness to norepinephrine; this diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If progressive renal im-

for experience—



or ours.

pairment becomes evident, consider withholding or discontinuing diuretic therapy. Thiazides may decrease serum PBI levels without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged therapy; thiazides should be discontinued before testing for parathyroid function.

Adverse Reactions: *Gastrointestinal System*—Anorexia; gastric irritation; nausea; vomiting; cramping; diarrhea; constipation; jaundice (intrahepatic cholestatic jaundice); pancreatitis; sialadenitis.

Central Nervous System—Dizziness; vertigo; paresthesias; headache; xanthopsia.

Hematologic—Leukopenia; agranulocytosis; thrombocytopenia; aplastic anemia.

Cardiovascular—Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity—Purpura; photosensitivity; rash; urticaria; necrotizing angitis (vasculitis) (cutaneous vasculitis); fever; respiratory distress including pneumonitis; anaphylactic reactions.

Other—Hyperglycemia; glycosuria; hyperuricemia; muscle spasm; weakness; restlessness; transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

Note: When used with other antihypertensive drugs, careful observations for changes in blood pressure must be made, especially during initial therapy. Dosage of other antihypertensive agents must be

reduced by at least 50 percent as soon as this drug is added to the regimen. As blood pressure falls under the potentiating effect of this agent, further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary.

How Supplied: Tablets containing 25 mg hydrochlorothiazide each in bottles of 100 and 1000 and single-unit packages of 100; Tablets containing 50 mg hydrochlorothiazide each in bottles of 100, 1000, and 5000 and single-unit packages of 100; Tablets containing 100 mg hydrochlorothiazide each in bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

J6HD04(528)

MSD
MERCK
SHARP
DOHME

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Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (Federal Register, 37.20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides, pregnancy, nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended. Therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. Blood dyscrasias: Agranulocytosis; aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia; hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. Allergic reactions: Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. Gastrointestinal reactions: Glossitis, stomatitis, nausea, emesis, abdominal pain, hepatitis, diarrhea and pancreatitis. CNS reactions: Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).



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Safety of Hot and Cold Liquids in Patients with Acute Myocardial Infarction — I. M. Cohen et al (Naval Regional Medical Center, San Diego, CA 92134) Chest 450-452 (April) 1977.

Patients with acute myocardial infarction are frequently not fed hot and cold liquids because of possible deleterious effects on heart rate, blood pressure, and cardiac rhythm. In an attempt to identify and quantify such changes, hot liquid with a temperature in excess of 70 C and cold liquid at an average temperature of 7 C were ingested by 20 patients within 36 hours of documented myocardial infarction and by 11 control patients with severe anginal episodes or chest wall syndromes. Heart rate and rhythm were continuously monitored during ingestion of the hot and cold liquids, and blood pressure was recorded intermittently. No patient in either group had a change in cardiac rhythm or an increase in ectopy during ingestion of the hot or cold liquids. Changes in blood pressure and heart rate were also not significant during liquid ingestion by patients with infarction and control patients.

Temporary Hypothyroidism After Surgical Treatment of Thyrotoxicosis — A. D. Toft et al (W. J. Irvine, Royal Infirmary, Edinburgh, England) Lancet 2:817-818 (Oct 16) 1976.

Mild clinical hypothyroidism associated with low levels of serum total thyroxine (T_4) and triiodothyronine (T_3) and raised levels of serum thyroid-stimulating hormone (TSH) was observed in 14 of 40 patients (35%) in the early months after a subtotal thyroidectomy for thyrotoxicosis under cover of propranolol. In ten of the patients, however, the hypothyroidism was temporary and at six months after operation the thyroid hormone levels were normal and the serum TSH levels had fallen. In four of the patients in whom clinical and biochemical evidence of hypothyroidism persisted six months post-operatively, long-term T_4 replacement therapy was instituted. The diagnosis of permanent hypothyroidism should not be made before six months have elapsed after operation.

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Outpatient Breast Biopsies — R. R. Baker
(Johns Hopkins Univ School of Medicine,
Baltimore, MD 21205) Ann Surg 185:543-
547 (May) 1977.

Because an increasing number of women do not wish to be anesthetized not knowing the specific diagnosis and not knowing if they will awaken with or without their breast, the traditional approach of biopsy under general anesthesia, frozen section, and simultaneous mastectomy has been abandoned in most instances. One hundred fifty-three consecutive biopsies were performed under local anesthesia. Nineteen patients proved to have a carcinoma, 23 patients had nonobligate precursors of carcinoma, five patients had a lymphoma, and the remaining patients had benign disease. No significant complications occurred. Breast biopsies under local anesthesia avoid a good deal of psychologic trauma to the patient and allow the surgeon to plan therapy based on a precise histologic diagnosis. There are also substantial savings on both the direct and indirect cost of a breast biopsy under local anesthesia compared with a similar procedure under general anesthesia.

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Early Gastric Carcinoma: Value of Combined Use of Endoscopy, Air Contrast X-ray Films, Cytology, and Multiple Biopsy Specimens — A. Qizilbash et al (Henderson General Hosp, Hamilton, Ontario, Canada) *Arch Pathol Lab Med* 101:610-614 (Nov) 1977.

Five cases of early gastric carcinoma were diagnosed during a one-year period at the Henderson General Hospital, Hamilton, Ontario, Canada. All five patients were symptomatic and were diagnosed by a combination of endoscopy, roentgenology brush cytology, and biopsy specimens. No cases of early gastric carcinoma were diagnosed in the preceding ten years. A total of 75% of the cytological preparations were positive and all five biopsy specimens showed carcinoma. The ulcerated or type III lesion was present in three cases. No lymph node metastases were present in the gastrectomy specimens. The increasing rate of detection of early gastric carcinoma is attributed to the use of upper gastrointestinal endoscopy, air-contrast barium meal examinations, cytology, and multiple biopsy specimens.

Lunchtime Gin and Tonic a Cause of Reactive Hypoglycemia — S. J. D. O'Keefe and V. Marks (Dept of Biochemistry, Univ of Surrey, Guildford, Surrey, England) *Lancet* 1:1286-1288 (June 18) 1977.

Ten healthy young subjects drank, on three separate occasions, the equivalent of three gin and tonics containing 50 g alcohol and 60 g sucrose, gin and tonic containing 50 g alcohol and 0.5 g sucrose, or tonic alone containing 60 g sucrose. Their behavior, symptoms, and blood glucose and plasma insulin levels were monitored for five hours. Both of the alcohol-containing drinks caused mild to moderate inebriation, but gin and tonic had no significant effect on either blood glucose or plasma insulin levels. Gin and tonic provoked a great insulinemia and more profound reactive hypoglycemic response than tonic alone, and in three of the subjects this was associated with the appearance of neuroglycopenic symptoms. Alcohol-mediated reactive hypoglycemia may contribute significantly to auto accidents in the late afternoon at a time when blood alcohol levels have fallen below the legal limit.

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THE NEBRASKA MEDICAL JOURNAL

IF I HAD TO DO IT OVER

I might choose dermatology; I don't suppose there's a great deal of night call or emergency there. I'd look into psychiatry and radiology; they sound good. Urology, obstetrics, surgery, and pediatrics don't seem any better than anesthesiology, which I chose after a long period of not-too-clever soul-searching. You can't get a history in neonatology, but that specialty didn't exist when I was young; and you have to learn all those mind-boggling tracts in neurology. Your patients are all dead in pathology, and you don't get to see them in hematology.

I don't think I would be happy in oncology. Ear nose and throat was not my first choice, nor was eye, although I thought of eye in my freshman year. That leaves general practice, but you have to know something about everything there; and orthopedics, with its hammers and chisels and saws and screwdrivers, and all that plaster. There is medical administration, but you don't treat anybody there.

If I left your specialty out, I'm sorry. If I put yours down, well, you didn't choose mine.

Anyway, you can't lead two lives although one doctor in ten changes specialties.

Still, nine don't. And we don't get to do it over.

But if I did, I'd still be a doctor.

—F.C.

DOCTORS AND OFFICES

Physician's cards are printed in some state journals. It is a nice custom, and one that I hope will catch on here. I counted the doctors in recent issues of two of these journals, and added figures from my county society, and this is what I found.

MDs/office	1	2	3	4	5	6	7	8	9
Offices	183	57	37	17	9	8	7	2	3
Doctors	183	114	111	68	45	48	49	16	27

MDs/office	10	11	13	14	16	20	21	23	26	31	53
Offices	1	1	3	2	1	2	2	1	1	1	1
Doctors	10	11	39	28	16	40	42	23	26	31	53

The commonest number, both for offices

and physicians, was for the solo practitioner. But this doctor represents only 18.67 percent of this physician population, or one in every five-to-six doctors. The two-doctor and three-doctor groups come close. The average office has (980/339) 2.88 doctors. Of the two states I counted, the names of 191 physicians appeared in one, and 567 in the other, and there were 222 in my county, adding up to 980 MDs.

In some instances, only one doctor's name appeared, but with these words: and associates. The larger groups, in a large state, sometimes read: hospital, or clinic; but then the word clinic was occasionally used by a doctor practicing alone.

I cannot claim that this is a random selection. They are all in two states and one county. Most of them are physicians who support their journal and these are October figures. But they are interesting. Lawyers have been officing together for a long time; you have only to read the names on their doors; although you would think we would be the ones to practice together, what with being up all night and having somebody available at all hours and during vacations. In my county there are almost three times as many lawyers as doctors. Maybe lawyers huddle together for security or for warmth. Maybe in the future nobody will practice law or medicine alone, but I think the solo practitioner will always be with us. Many of us are loners, and there are as many arguments one way as the other.

—F.C.

MEDICAL REPORTS

Three things give me pause in reading medical reports.

One is *grade two*. Unless the examiner tells you how many grades there are, *grade two* tells you little. I usually assume that there are four grades to everything in medicine, but I have seen three and six on occasions. Writing 2/4 is good, I think. And I have seen grade two used when you could not tell if the doctor meant grade two motion, or grade two limitation of motion. Sometimes you do not know if the examiner

means muscle strength, or the extent of weakness.

The second is the lovely phrase: *no change in the findings as compared with previous studies*. Unless you have the previous studies, which you usually don't, the report tells you nothing. It is good to compare a study with an earlier one, but reports of x-ray, lung function, kidney function, or heart should tell you what was found when the study was made.

And the third is the undated report. If I ever become president, I will require every page of everything to be dated, and every date to appear in the same place, as the upper right corner, on medical reports, legal documents, letters, memos, everything. Sometimes a four-page report, and no report should take four pages, carries the date only on the first page, there is often no date at all, even though there is a space for it, and I occasionally run into the clever reporter who tells you that the patient was seen on October 11th, but doesn't bother to put down the year. And there is the fellow who says the patient was seen Monday.

I think the examiner should pretend that he is someone who is going to read the report next year, and then read over what he has written.

—F.C.

HOW MANY DOCTORS

I give up. Just a little bit ago, we were being criticized for having too few doctors and not enough medical schools. We were deliberately keeping the number of physicians down, I read, so that each one would have more patients and a larger income, it was implied. We were supposed to be discouraging the building of new medical schools, as well as the enlargement of classes.

And just the other day there was a television program during which they spoke of second opinions and needless surgery. We have too many surgeons, I seemed to hear, and we go right on graduating more of them and more physicians than we need.

A few years ago, we had 350,000 doctors in the United States, and a panel member spoke of 400,000. But how can we have too few not too long ago and too many now? And

how can we be accused of not having enough physicians to take care of people at one time, and of having more than we need now? Sometime, maybe it was last year, we must have had exactly the right number of doctors.

I wish the we-need-more-doctors people and the we-have-too-many doctors people would get together, and send us the minutes of their meeting. I am a member of the we-have-too-many-panel-discussants society; put me down as a charter member.

—F.C.

THE READER BROUGHT UP TO DATE

I finally know what reredos means, what an etagere is, and what ormolu looks like. I have looked up chrysoprase and escritoire and chalcedony for the last time, and I have just now found out what high-rise means. I have only this moment discovered the definition of biological feedback; and I am ready. I know ratiocination and |exegesis and epistemology and dialectical and gazebo. I understand obi and armoire and orrery and netsuke. I have looked up esoteric and majolica and exotic, many times, prolegomena, too.

I am ready; I can read just about everything, everything, that is, but medicine. For here you run into scintigrams and health care industry and CT scanning and computerized tomography, HGPRT, strain gauge, plethysmography, pharmacokinetics, problem-oriented records, katals, dipole-dipole attraction, and SQ 20881.

I do not need to know Occam's razor or rococo, but SOAP and oncotic pressure and cyanocobalamin and pseudopseudohypoparathyroidism are important. My medical-school notebooks are no help; they don't even mention PSRO.

If I am going to take one book with me, it had better be the dictionary. It might tell me what a femtoliter is, or Hertz or a nanogram or a pascal or Torr. The human body can't have changed that much since I graduated, but the doctors have changed. If I treated mitral stenosis or a broken hip the way we did in my student days, I'd be consulting with the contingency-fee people.

—F.C.

Newborn Outcomes in a Rural Community Hospital

C. J. CORNELIUS, JR., M.D.

THIS study was undertaken as a medical audit based on the outcome of newborns delivered in a rural general hospital in response to the question regarding whether general and family practitioners should continue to be permitted to provide obstetrical care as a part of their comprehensive medical service and whether obstetrics should continue to be a part of family practice residency programs. Memorial Hospital of Sidney, Nebraska and its medical staff of 7 general and family practitioners provided the setting for such an audit for the period of January 1, 1975 through December 31, 1975.

There were 190 births including 13 C-sections and 3 stillbirths during the study period. (Table 1). In all stillbirths, fetal death had preceded the onset of labor. (Table 2). 1 minute and 5 minute Apgar scores of less than 7 identified a total of 8 newborns at risk as summarized in Table III. Six newborns were transferred to other facilities as shown in Table IV. Short term hospital stays of less than 3 days and long term stays of more than 5 days are reported in Table V. There were no pregnant mothers referred for delivery elsewhere because of increased risk factors.

Table I
Newborns

1. Total births	190
2. Stillbirths	3
3. Neonatal deaths	0
4. C-sections	13
5. *At risk	8

*Apgar scores below 7

Table II
Stillbirths

1. #2699 — This stillborn had undergone intrauterine death suspected for approximately 3 weeks prior to admission in labor. No precipitating cause was evident. At the time of delivery, the infant showed marked degenerative changes with severe

softening of the skull and brain with nearly liquifactive changes consistent with intrauterine death several weeks prior to delivery.

2. #9032 — This stillborn was the second of twins and the hospital record does not indicate that multiple pregnancy was anticipated prior to labor and delivery. Because of persistent uterine enlargement following delivery of the first infant, the second infant was detected, but no fetal heart tones or movement were evident. The description of the stillborn infant indicates that intrauterine death had occurred prior to the onset of labor because of softening of the brain and marked overlapping of the skull bones.

The mother was advised that this baby, the second of twins, was probably dead prior to delivery. It was estimated by the attending physician that this baby had died at least 24 hours prior to delivery. It is noted that the mother was RH negative and the stillborn was RH positive but had a negative Coombs test and the live member of the twins was also RH positive with a negative Coombs test. The mother's blood showed no antibodies to the RH factor and the mother was given Rhogam prophylaxis. It is therefore concluded that RH sensitivity played no part in the intrauterine death.

3. #4352 — The mother of this infant reported that no fetal movement had been noted for approximately nine days prior to admission. Two days prior to admission and the onset of labor, no fetal heart tones were detected. At the time of delivery, the umbilical cord was wrapped tightly about the neck three times and the attending physician felt that this condition had produced intrauterine strangulation of the infant resulting in the stillbirth.

Table III
Apgar Results

- *1. Apgar Scores were recorded on 128 of the 190 newborns.
- **2. Low 1 minute Apgar newborns = 7
- ***3. Low 5 minute Apgar newborns = 2
- *One infant who stayed longer than 5 days had no Apgar score recorded.
- **One infant had a 1 minute Apgar of 4, a 5 minute Apgar of 6 and a 10 minute Apgar of 10.
- ***One infant had a 1 minute Apgar of 9 and a 5 minute Apgar of 6 and required transfer to another facility.

Table IV
Infants Transferred to Other Facilities

1. Total	6
2. Respiratory distress	2
3. Atelectasis	2
4. Hyaline membrane	1
5. Projectile vomiting	1

*Prematurity alone did not constitute sufficient reason for transfer but was a factor in 4 of the newborns requiring transfer.

Table V
Short or Extended Stays

Short stays (less than 3 days)	19
1. No health insurance	11
2. Multiparous mothers	3
Extended stays (more than 5 days)*	24
1. C-sections	13
2. Hyperbilirubinemia	16
3. Premature/low birth weight	4
4. Respiratory distress and/or infection	4

*More than one of the above factors was present in several of these infants.

SUMMARY

There were 190 deliveries in this hospital from January 1, 1975, through December 31, 1975. Three of the newborns were stillbirths with fetal death having occurred prior to the onset of labor. No neonatal deaths occurred. Of the eight babies born at risk using Apgar scoring criteria, only two required transfer to other facilities and two were dismissed on the 2nd day and thus represented short term stays. Only one of the infants with a low Apgar score stayed longer than 5 days in this hospital. Nineteen newborns stayed in the hospital less than three days and eleven

or 58% of these had no health insurance coverage. Twenty-four newborns stayed longer than five days and thirteen or 53% of these were C-section babies. Hyperbilirubinemia was present in 70% of the extended stay infants and 17% of the extended stays involved prematurity or low birth weight infants. Six infants in all required transfer to other facilities and all six are living and well at this time. Four of the six babies transferred to other facilities were premature and five of the transferred infants demonstrated some respiratory distress, fetal atelectasis, or suspected hyaline membrane disease.

CONCLUSIONS

All of 187 infants born alive in this community hospital during the one year study period were dismissed alive and well following neonatal hospital stay, either here or in a referral hospital, and only six, or 3.2% of these infants, required transfer to facilities with a more sophisticated level of newborn care. Only three stillbirths were recorded during the study period and none of these occurred during labor or delivery and no neonatal deaths occurred. Babies born with low 1 minute Apgar scores were cared for adequately in this hospital and only one required transfer to another facility because of prematurity and respiratory distress. One baby with an acceptable 1 minute Apgar score had a 5 minute score of 6 and required transfer. Ground or air transport was used depending upon weather conditions and the condition of the infant requiring transfer.

Based on infant outcomes, these findings would indicate that Memorial Hospital in Sidney, Nebraska was a safe place for obstetrical delivery and newborn care during this one year study period.

Memorial Hospital of Sidney, Nebraska has a licensed capacity of 74 beds and 14 bassinets. All seven staff physicians are members of the AAFP and do obstetrics at Memorial Hospital. The obstetrical department consists of 2 labor rooms and 2 delivery rooms and is staffed by 2 obstetrical nurses and 2 nurse anesthetists, who respond on call. Facilities also include 2 isolettes and 1 infant transporter.

Systemic *Haemophilus Influenzae* Infections in the Era of Ampicillin Resistance

A child hospitalized in Omaha, Nebraska in May, 1974, was one of the earliest reported cases of ampicillin-resistant *H. influenzae* meningitis.¹ In order to formulate guidelines for the management of life-threatening *H. influenzae* infection in the face of potential ampicillin resistance, we have studied epidemiologic, clinical, laboratory, and therapeutic features of *H. influenzae* bacteremia and meningitis during the past 2½ years.

MATERIALS AND METHODS

We reviewed the hospital records of all patients with blood or cerebrospinal fluid (CSF) cultures positive for *H. influenzae* at the University of Nebraska Medical Center, Childrens Memorial Hospital, and Creighton Memorial-St. Joseph Hospital from January 1, 1974 through June 30, 1976. Cases were categorized as *meningitis* on the basis of a positive CSF culture and as *bacteremia* on the basis of a positive blood culture, and if a lumbar puncture was performed, a negative CSF culture.

H. influenzae at two hospitals were typed by capsular swelling with specific antisera or, at the third hospital, by both agglutination and fluorescent antibody techniques. One hospital performed disc diffusion antibiotic susceptibility testing with an unstandardized inoculum size throughout the study period, and the other two hospitals converted to a standardized inoculum size procedure^{2,3} during the study period. Beta-lactamase activity was assayed by an acidometric capillary tube technique.⁴ Ampicillin resistance was defined as a minimum inhibitory concentration of > 3.12 mcg/ml as determined by tube-dilution testing using an average inoculum size of 10⁴⁻⁸ colony-forming units/ml.

RESULTS

H. influenzae caused meningitis in 71

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and

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patients and 24 episodes of bacteremia in 23 patients during the two and a half year study period.

General Features

With the exception of one 77-year-old woman, meningitis patients ranged in age from 2 to 59 months. In contrast, 3 bacteremia patients were adults and 2 were newborns; the remaining pediatric patients with bacteremia had an age range of 4 to 80 months.

Meningitis patients occasionally had otitis media and one meningitis patient had both purulent pericarditis and empyema. Underlying conditions associated with increased susceptibility to bacterial infection were recognized in only two (3%) patients with meningitis (Down's syndrome and metastatic Wilm's tumor undergoing chemotherapy). Only three (4%) meningitis patients died, none of whom had predisposing conditions.

Seven (30%) bacteremia patients had underlying conditions associated with increased susceptibility to bacterial infections (two infants born after gestational ages of 30 weeks and premature rupture of membranes and one patient each with diabetes mellitus, metastatic lung cancer and chronic lympho-

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This study was supported in part by a Seed Research Grant from the Nebraska legislature.

cytic leukemia, Down's syndrome, acute lymphocytic leukemia, and an extensive burn). Only two (29%) of these patients had a focus of infection (sinusitis and pneumonia). Four (57%) of the bacteremia patients with a predisposing condition died.

Sixteen (70%) bacteremia patients had no predisposing conditions. A focus of infection was present with 16 (94%) of 17 episodes of bacteremia in this group (four episodes of epiglottitis, three each of pneumonia and facial cellulitis, two of otitis media, and one each of orbital cellulitis, septic arthritis, purulent pericarditis, and endometritis). One previously healthy patient who had normal immunoglobulin levels and a palpable spleen experienced two distinct episodes of bacteremia; he presented with purulent pericarditis at four months of age and facial cellulitis at seven months of age. All of the previously healthy bacteremia patients survived.

Laboratory technicians reported Gram negative pleomorphic coccobacilli in 94% of initial CSF Gram stains in which the CSF culture yielded *H. influenzae*; the other CSF Gram stains were read as showing no bacteria. There were no instances of CSF Gram stain interpretation indicative of an organism other than *H. influenzae*.

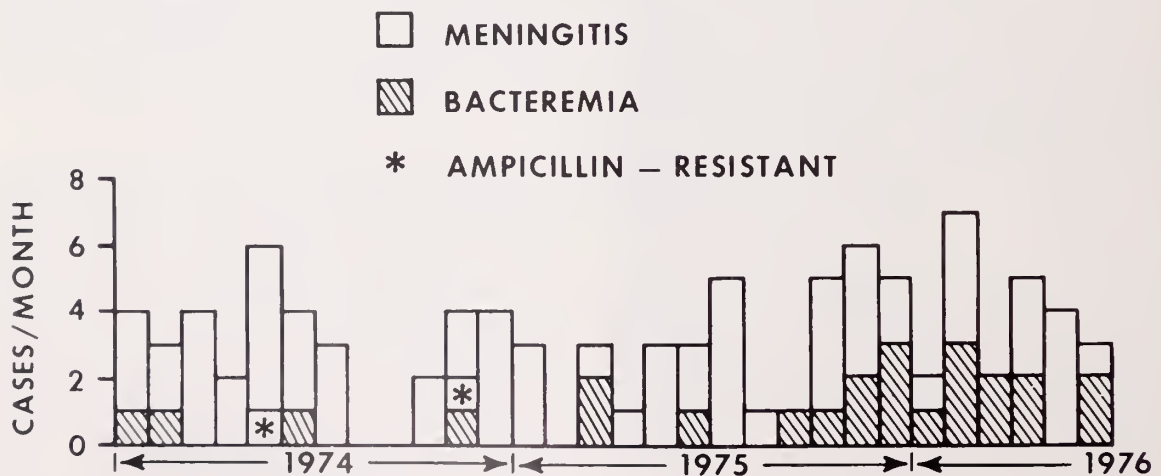
Serotyping was performed on either a CSF or blood isolate from 65 patients and 60 (94%) were type b. One bacteremia isolate

was type a and two meningitis isolates and one bacteremia isolate were nontypable.

Ampicillin-resistant *H. influenzae*

During 1974, two (6%) of 32 cases of *H. influenzae* meningitis were caused by ampicillin-resistant organisms. One of the patients with ampicillin-resistant *H. influenzae* meningitis was referred from Missouri and the other lived in Omaha, and they were not hospitalized at the same time. During 1975 and the first six months of 1976, isolates from all patients with *H. influenzae* meningitis were sensitive to ampicillin. We have encountered no ampicillin-resistant *H. influenzae* bacteremia. The last nineteen months of the study period passed without a case of systemic *H. influenzae* disease caused by an ampicillin-resistant organism (FIGURE). All *H. influenzae* isolates were sensitive to chloramphenicol.

Ampicillin disc diffusion susceptibility results were unreliable. More than half of the sensitive organisms had been labelled resistant by disc testing. Use of a standardized inoculum-size procedure^{2,3} did not lower the rate of falsely-resistant readings. The beta-lactamase assay, in contrast, showed perfect correlation with tube dilution results for ampicillin. All ampicillin-sensitive isolates were beta-lactamase negative and the two ampicillin-resistant isolates were beta-lactamase positive.



Cases of *H. influenzae* meningitis or bacteremia in Omaha, Nebraska from January 1, 1974 through June 30, 1976.

Among the patients with ampicillin-sensitive *H. influenzae* meningitis, 36 were treated initially with ampicillin and 33 were treated initially with chloramphenicol (most commonly combined with either penicillin or ampicillin). There was no significant difference between the two groups in duration of fever (median duration of one day in both groups), neurologic sequelae (11% and 6%, respectively), or mortality (5% and 3%, respectively). One patient with ampicillin-sensitive *H. influenzae* was treated with both chloramphenicol and ampicillin for three days and then ampicillin alone for 11 days, following which he had a bacteriologic relapse. Dose and route of ampicillin were appropriate and no sequestered focus of infection was found. He was subsequently cured by a course of therapy with chloramphenicol.

One patient with ampicillin-resistant *H. influenzae* meningitis was treated with chloramphenicol. She responded promptly and survived neurologically intact. In contrast, the other patient with ampicillin-resistant *H. influenzae* meningitis¹ was treated with ampicillin for the first five days and had continuing fever and lethargy, increasing CSF protein and white cells, persistently low CSF sugar, and positive cultures. When chloramphenicol was substituted for ampicillin on the sixth hospital day, fever resolved and CSF cultures became negative. However, she had marked psychomotor retardation, blindness, and arrested communicating hydrocephalus. Over the following 21 months, she has gradually improved. Head circumference, vision, speech, and social development are normal, but she has slight spasticity, walks with a wide-based gait, and has moderate delay in motor activities. (A detailed case report is available on request.)

DISCUSSION

Although *H. influenzae* meningitis has increased in prevalence, its age distribution has not changed significantly over the past half century.⁵⁻⁷ The rarity of patients under three months of age or beyond the pediatric age group and the predominance of the 6-36 month age group in this study are quite similar to the data from the 1920-32 Fother-

gill and Wright study of *H. influenzae* meningitis.⁸

In our series of patients, meningitis caused by *H. influenzae* occurred almost exclusively in healthy young children and was only rarely accompanied by foci of infection other than otitis media. Bacteremia due to the same organism occurred over a wider age range and more commonly involved patients with predisposing conditions. Bacteremia patients with a predisposing condition often had no focus of infection and had a high fatality rate, while bacteremia in previously healthy patients was usually accompanied by a variety of foci of infection and mortality was absent.

Two recent reviews of patients with systemic *H. influenzae* disease have depicted a spectrum similar to this study.^{9, 10} The observation in all three series of an occasional previously healthy patient with bacteremia and no detectable focus of infection is of particular clinical importance.

Reinfection with *H. influenzae*, as represented by our healthy patient with two distinct episodes of bacteremia, has not been previously reported. The explanation for his failure to develop protective immunity following his first infection is unknown.

250 clinical case isolates of *H. influenzae* from 43 of the 50 states have now been confirmed as resistant to ampicillin at the Center for Disease Control.¹¹ The actual proportion of *H. influenzae* disease caused by ampicillin-resistant strains in different geographic locations and at different times has varied from 0% to 13%.¹²⁻¹⁵ The proportion of meningitis due to ampicillin-resistant *H. influenzae* in Omaha has varied from 6% in 1974 to 0% in 1975 and the first half of 1976.

Among the cases of ampicillin-resistant *H. influenzae* infection, meningitis was the principle disease manifestation, but there were also instances of bacteremia, otitis media, pneumonia, and epiglottitis.¹⁶ Although the following discussion of therapy will focus on meningitis, the same principles apply to other types of suspected or confirmed *H. influenzae* infection.

In children and infants beyond the neonatal period, acute bacterial meningitis is generally due to one of three pathogens: *H.*

influenzae, pneumococci, and meningococci. Although experienced laboratory technicians accurately described the Gram stain of 94% of CSF specimens which grew *H. influenzae* in this study, pediatric residents in two other studies correctly interpreted only 65%¹⁷ and 33%¹⁸ of CSF Gram stains. With this degree of uncertainty, it is wise to initiate antibiotic coverage for all three potential pathogens pending culture results.

Of the many reported cases of ampicillin-resistant *H. influenzae* meningitis treated with ampicillin, eradication of the organism required a change from ampicillin to chloramphenicol in all but three patients.^{19, 20} The contrast between the two children with ampicillin-resistant *H. influenzae* meningitis in this study — one with bacteriologic failure and concomitant neurologic damage on ampicillin therapy and one responding promptly to chloramphenicol — illustrates the danger of inadvertently treating *H. influenzae* meningitis caused by an ampicillin-resistant strain with ampicillin, even for a short period of time.

We currently recommend the initial use of both chloramphenicol (100 mg/kg/day IV in four divided doses) and penicillin (300,000 units/kg/day IV in six divided doses) as an alternative to ampicillin. As soon as CSF culture results are available, therapy should be continued with a single antibiotic: chloramphenicol for *H. influenzae* and penicillin for pneumococci or meningococci.

If *H. influenzae* are isolated, prompt, accurate determination of ampicillin susceptibility is critically important. Disc diffusion testing for *H. influenzae* has been unreliable in the past^{2,21} and institution of a new, standardized technique^{2, 3} did not improve our results. Ampicillin-resistant *H. influenzae* produce a beta-lactamase enzyme which inactivates ampicillin and several different beta-lactamase assays have been described.^{4, 22-24} The beta-lactamase assay based on hydrolysis of penicillin, using a pH-dependent colorimetric change⁴, proved to be highly accurate in this study and can be readily performed in a small hospital laboratory.

If the *H. influenzae* isolate is sensitive to ampicillin, the clinician then has the option of continuing chloramphenicol or changing to ampicillin. Chloramphenicol is as effective, if not more effective, than ampicillin in the treatment of *H. influenzae* meningitis. As illustrated by one patient in this series, relapse of ampicillin-sensitive *H. influenzae* meningitis occasionally occurs after ampicillin treatment.^{25, 26}

Despite the lack of ampicillin-resistant *H. influenzae* disease since November, 1974, a period of 19 months, we have continued to recommend the use of chloramphenicol for suspected or confirmed *H. influenzae* infection, pending reliable demonstration of ampicillin sensitivity. The experience in Atlanta of an 11 month hiatus between ampicillin-resistant isolates of *H. influenzae*¹³ prompts caution in returning prematurely to ampicillin.

We have instituted a prospective surveillance system of *H. influenzae* blood and CSF isolates to monitor the frequency of ampicillin resistance and provide an on-going basis for antibiotic recommendations.

ADDENDUM:

A case of ampicillin-resistant *H. influenzae* meningitis occurred in December, 1976, extending the interval between cases to 24 months; the rate of ampicillin-resistant *H. influenzae* meningitis was 4% in 1976. During the first six months of 1977, 10% of *H. influenzae* meningitis was caused by ampicillin-resistant organisms. These observations support the continued initial use of chloramphenicol.

(References are available on request)

Acknowledgments

Our thanks to Paul Yam, M.S. (University of Nebraska Medical Center). Robert L. Kruger, M.D. (Childrens Memorial Hospital) and Cynthia A. Walker, Ph.D. (Creighton Memorial-St. Joseph Hospital) for access to laboratory records, to Sr. Joan Miriam Glaser, R.N., M.P.H., John D. Kugler, M.D., and Terry A. Lang, M.D. for assistance in data collection, and to Donna J. Simpson for typing the manuscript.

Computerized Tomography of the Head

— Part III

Abstract

Computerized tomography (CT) of the head is a safe, accurate, noninvasive neuro-radiologic procedure that is now being used routinely to evaluate patients with primary or metastatic brain tumors, to diagnose and localize the tumor, to show the extent of the disease, and to study the role of secondary pathologic factors and the long term central nervous system effects of both the tumor and its treatment.

BRAIN TUMORS

Computerized tomography (CT) of the head as has been previously described,^{1,2} is a safe, accurate, noninvasive neuroradiologic procedure that is used to evaluate brain tumor suspect patients.³⁻¹⁹

CT plays a major and often pivotal role in the evaluation, diagnosis, localization and follow-up of patients with suspected primary or metastatic brain tumors.

The CT diagnosis of brain tumors is based upon the multiplicity of lesions often seen with metastatic disease, the lesion's appearance such as density or densities compared to the surrounding brain parenchyma, composition such as cyst, necrosis, calcification, or degree of vascularity as seen with contrast enhancement (eg. Renografin 30) and secondary pathologic factors such as mass effect, edema and hemorrhage. Attempts have been made to diagnose the type of tumor based on its CT appearance — high density, homogeneous lesions are usually benign (eg. meningioma or acoustic neuroma), low density lesions are usually rapidly growing, and heterogeneous lesions are usually low grade gliomas.^{18, 19}

Below are presented four cases as examples of the valuable and often dramatic role that CT can be reasonably expected to play in brain tumor patients.

Case Report 1: FB, a 61 year old, right handed, white male, was admitted with a right hemiparesis and expressive aphasia in

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June, 1974; during April, 1973, he had undergone a right lung resection for a Grade IV squamous cell carcinoma. Skull x-rays, EEG, bilateral carotid plus vertebralbasilar artery arteriograms (except for vascular changes), and complete cerebrospinal fluid studies were without significant abnormality. Only the technetium brain scan showed a right occipital region of uptake on the static and delayed studies. While it was suspected that his right hemiparesis and aphasia were secondary to metastatic carcinoma, it could not be proven.

During July, 1974, a second EEG was without abnormality but a second technetium brain scan showed abnormal collections in the right superioposterior parietal region.

He was readmitted 6 weeks later with progression of the right hemiparesis. A third EEG showed diffuse 4-6 cycle per second activity, but no focal abnormalities. Cerebrospinal fluid studies were without abnormality. Repeat right and left carotid arteriograms showed atheromatous changes.

As it was still felt that the right hemiparesis was secondary to metastatic carcinoma, but without proof, the patient was referred to the Mayo Clinic for further evaluation. There, a third technetium brain scan was normal and a fourth EEG showed a focal Grade III dysrhythmia in the left parieto-occipital region. CT with contrast enhancement (Figure 1) showed two, possibly three intracranial metastases: the largest lesion being in the mid-brain, a 2 cm spherical left frontal lobe lesion adjacent to the pterion, and a smaller and less well defined right temporal lobe lesion.

Case Report 2: JE, a 29 year old, right handed, white male presented with com-

plaints of visual field cuts on 7/1/75, (before CT was locally available) of approximately 6 months duration. The only abnormality on neurologic examination was a bitemporal superior quadrantanopsia with early involvement of the inferior fields as well. A complete technetium brain scan, bilateral carotid artery arteriograms and complete CSF studies were normal. Skull x-rays and sellar tomograms showed sellar enlargement and erosion of the posterior clinoids. A pneumoencephalogram showed a large sellar mass with suprasellar extension. On 7/8/75, the patient underwent a frontal craniotomy and what was originally felt to be a total removal of the chromophobe adenoma.

Postoperatively the visual fields improved but not as rapidly and completely as was felt they should. For this reason, CT of the head (Figure 2) was performed on 9/4/75, and revealed the craniotomy defect and, only with contrast enhancement, a midline mass lesion within and immediately above the sella that was felt to represent residual chromophobe adenoma. Because of the CT findings the patient was treated with radiation therapy during which time the visual fields improved dramatically.

Case Report 3: FW, a 77 year old, right handed, white female, was evaluated during September, 1975, initially for a partially treated bacterial meningitis. The skull x-rays showed sellar demineralization and faint suprasellar calcification. As the meningitis was being treated, a rather profound dementia was unmasked for which no medical cause was found. A CT scan (Figure 3), performed to evaluate the dementia from a degenerative — atrophic standpoint, revealed a 2.1 x 2.5 cm suprasellar calcific mass lesion that enhanced with contrast media.

Even after the CT demonstration of the suprasellar mass lesion, one was unable to elicit clinical signs referable to this region secondary to the profound dementia.

Following bilateral carotid artery arteriograms and a pneumoencephalogram, the patient underwent a biopsy and partial removal of her chromophobe adenoma; later, she received radiation therapy.

Case Report 4: ES, a 28 year old, right handed, white male, had the onset of generalized grand mal seizures two weeks prior to his admission to a local hospital. Neurologic and neuro-ophthalmologic examinations, skull x-rays, and complete EEG were without abnormality. A technetium brain scan was normal as regards the angio and static studies; however, the 3 hour delay study showed an area of increased uptake in the right frontoparietal region.

The CT (Figure 4) demonstrated a small triangular shaped area of decreased density in the region of the right Sylvian fissure with small, 3-4 mm calcifications that enhanced with contrast media; there was only questionable mass effect involving the anterior right lateral ventricle.

A right carotid artery arteriogram showed only a questionable, mild mass effect involving one anterior loop of the right middle cerebral artery only on the lateral view in addition to very faint calcification just posterior to the midportion of coronal suture.

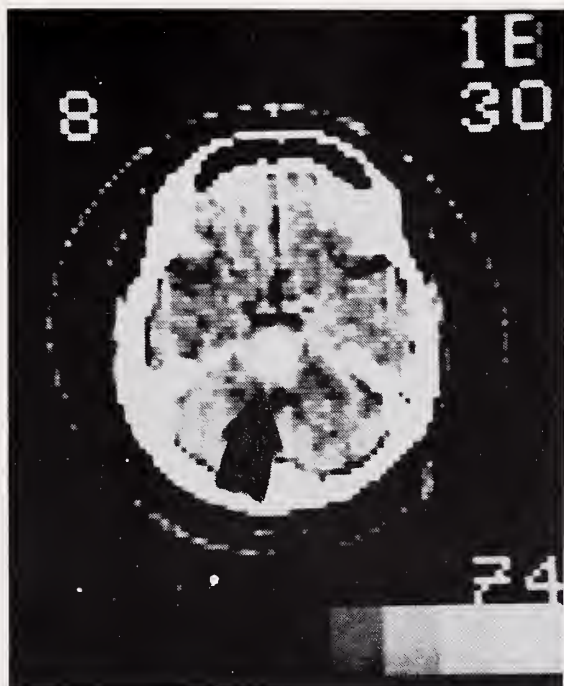
A 2x3 cm cystic Grade I astrocytoma with a 1x1 mural nodule (Figure 4-C) was removed through a right frontal craniotomy. This was followed by a course of radiation therapy.

Discussion

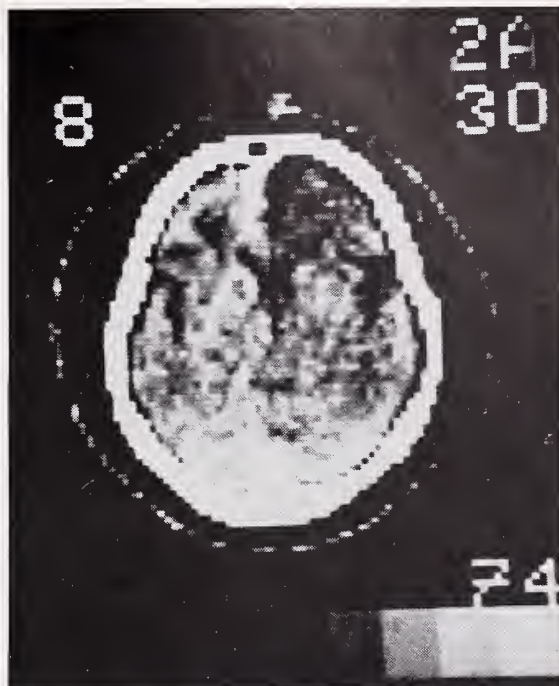
That CT scanning played a dramatic role in the evaluation, treatment and follow-up of the cases presented is without doubt.

In Case 1, little if any value as regards definitive diagnosis and localization was obtained from the skull x-rays, 4 EEGs, 2 CSF studies, 3 technetium brain scans, and 1 vertebrobasilar and 2 right and left carotid artery arteriograms. While the nature and localization of the left frontal lobe lesion was suspected, we could not prove it. However, the CT scan with contrast enhancement not only localized and diagnosed the left frontal lobe lesion, but revealed an extent of the disease that was unsuspected by demonstrating a second and possibly a third clinically silent metastatic lesion.

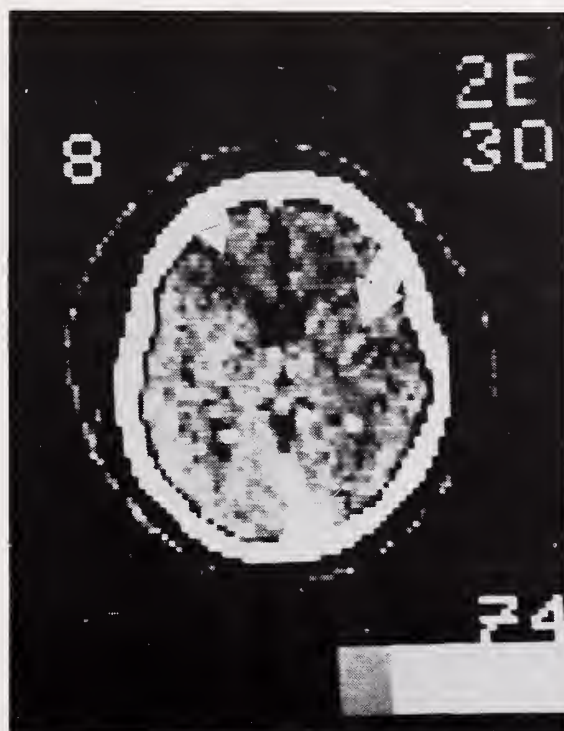
As Case 2 was initially felt to have been cured and his chromophobe adenoma completely removed it was recommended that he should be followed only periodically for



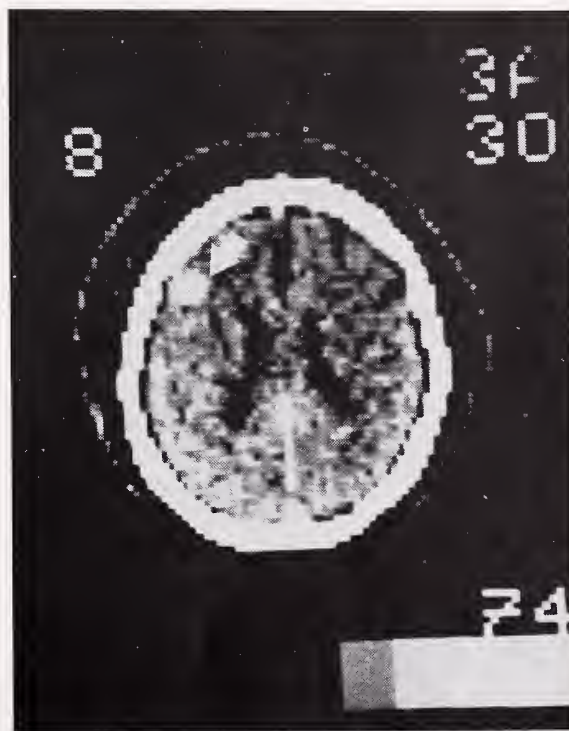
1-A



1-B



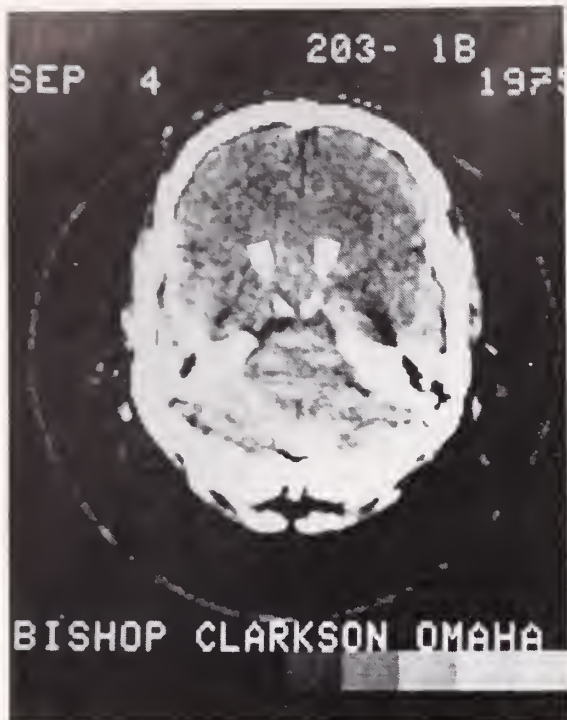
1-C



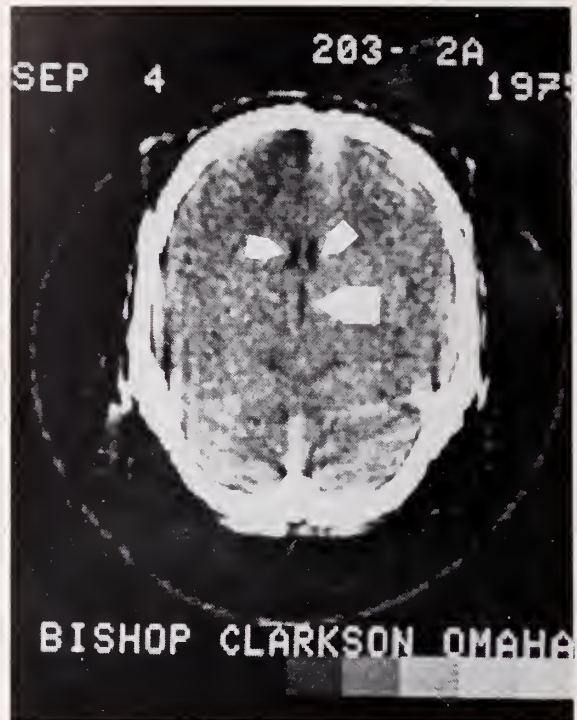
1-D

Figure 1

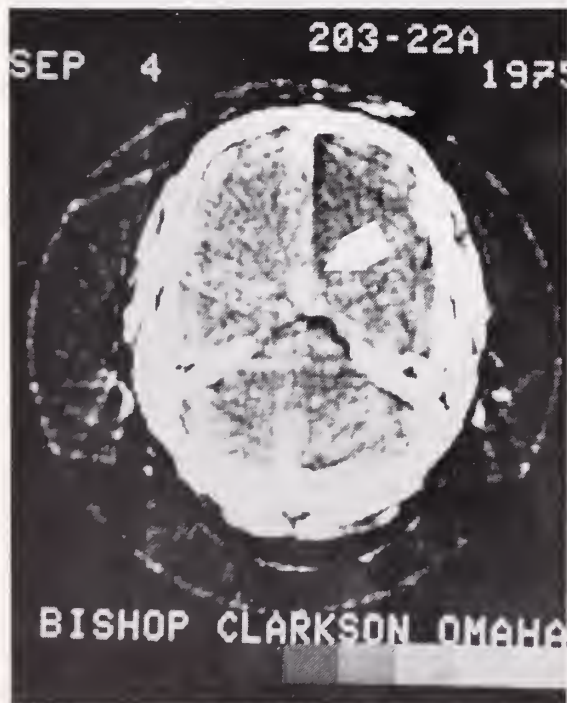
Head CT of Case 1. Figures 1-A,B,C and D are all performed with contrast enhancement. Figure 1-A shows a large area of metastasis in the mid-brain (arrow). Figure 1-C demonstrates a left frontal lobe low density area of edema (small arrow) and possibly a right temporal lobe metastasis (large arrow). Figure 1-D reveals the left frontal lobe metastasis (arrow). This series of scans was performed on the old 80x80 matrix.



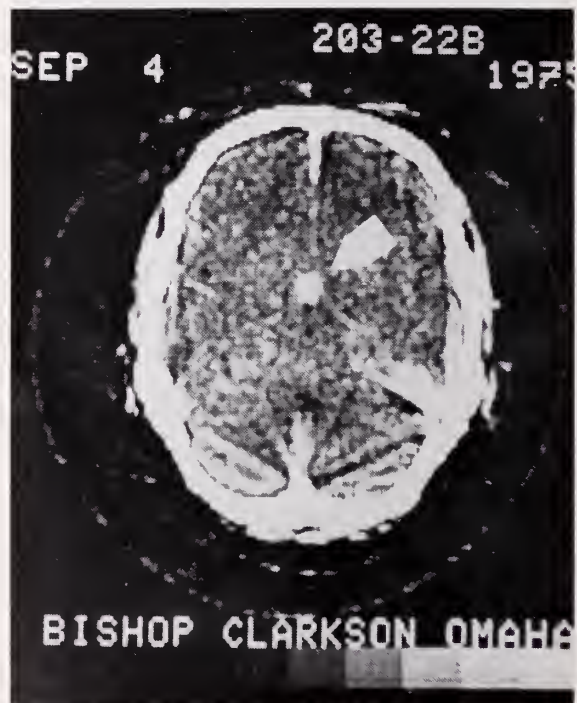
2-A



2-B



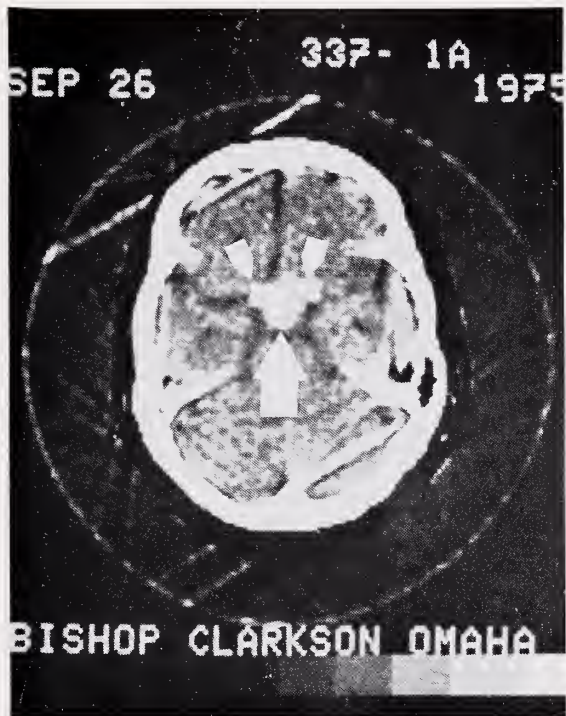
2-C



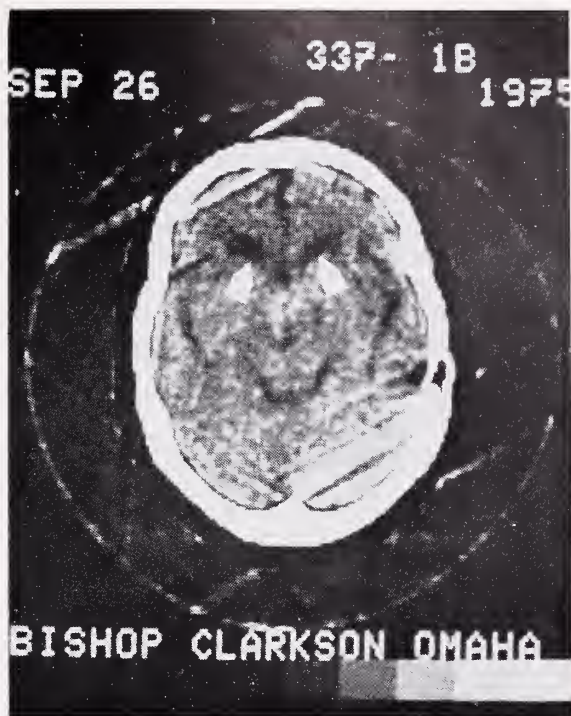
2-D

Figure 2

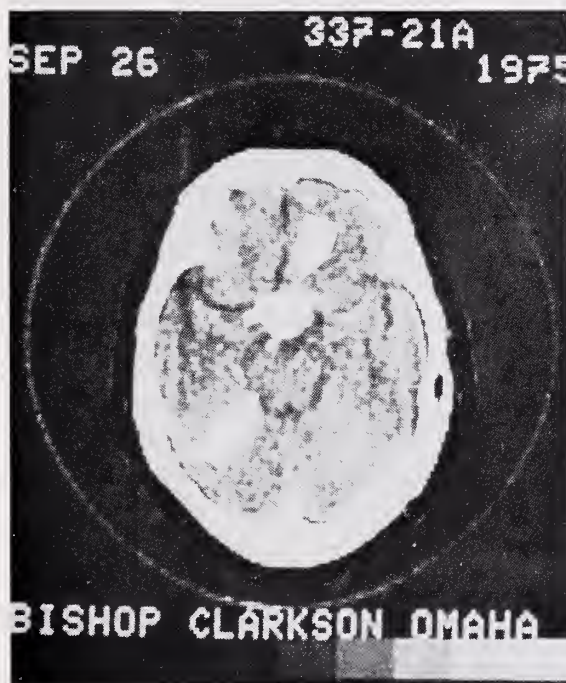
Head CT of Case 2. Figures 2-A and 2-B show no abnormalities on the CT without contrast enhancement; Figure 2-A shows the posterior clinoids (arrow) and Figure 2-B shows both lateral (small arrows) and the third ventricles (large arrow). Figures 2-C and 2-D performed with contrast enhancement (Renografin 30) at levels similar to Figures 2-A and 2-B reveal a sellar, Figure 2-C (arrow), and suprasellar, Figure 2-D (arrow), vascular chromophobe adenoma.



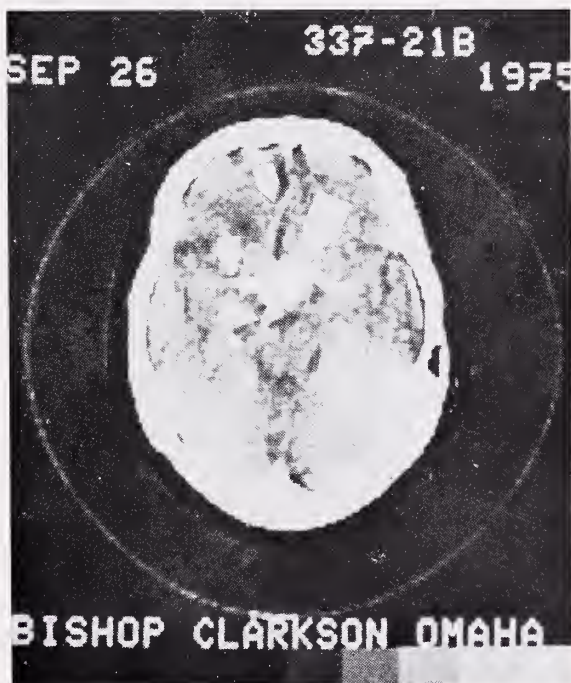
3-A



3-B



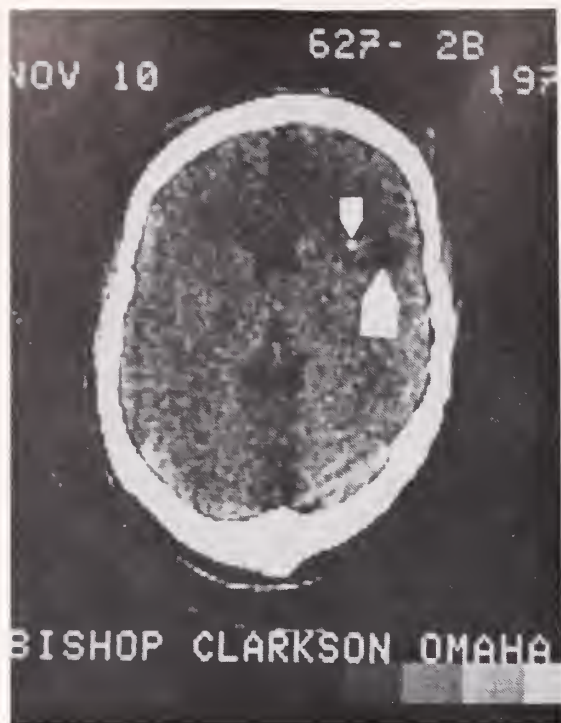
3-C



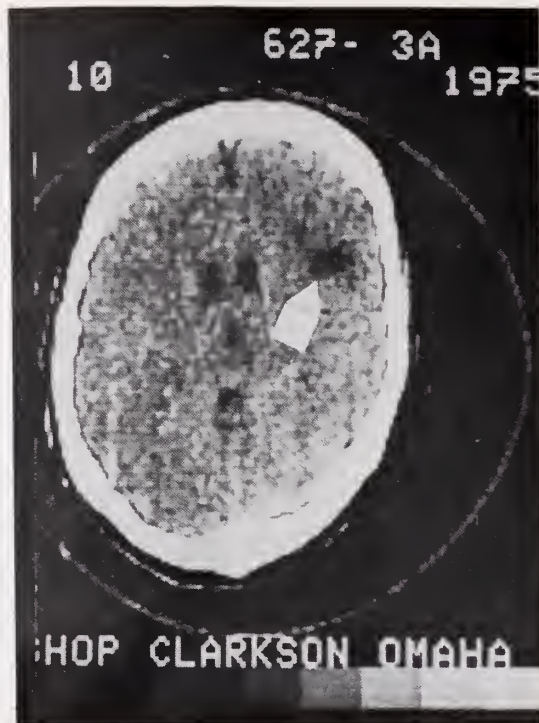
3-D

Figure 3

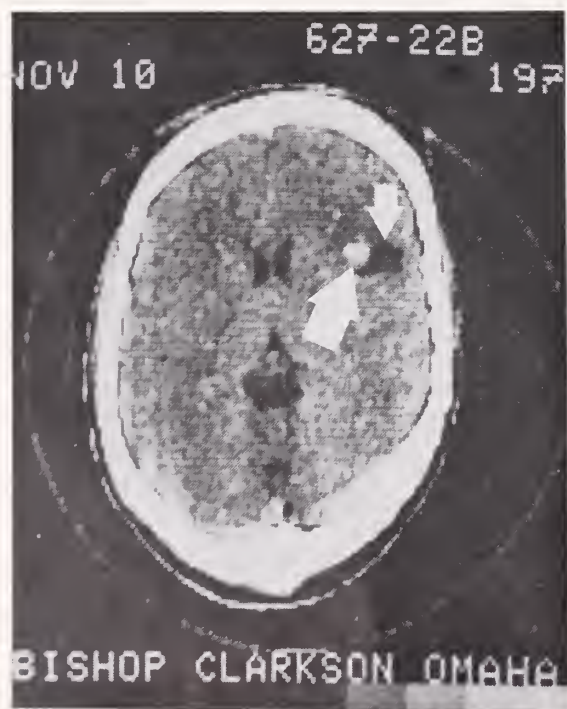
Head CT of Case 3. Figures 3-A and 3-B, performed without contrast enhancement, show a suprasellar calcific mass (large arrow) arising just posterior to the anterior clinoids, Figure 3-A (small arrows); the lateral ventricles are enlarged, Figure 3-B (small arrows). Figures 3-C and 3-D performed with contrast enhancement (Renografin 30) at levels similar to Figures 3-A and 3-B show the marked vascularity (middle arrows) of the chromophobe adenoma in addition to visualization of both middle cerebral, the left anterior cerebral and the left posterior cerebral arteries (small arrows), and the midbrain (large arrow).



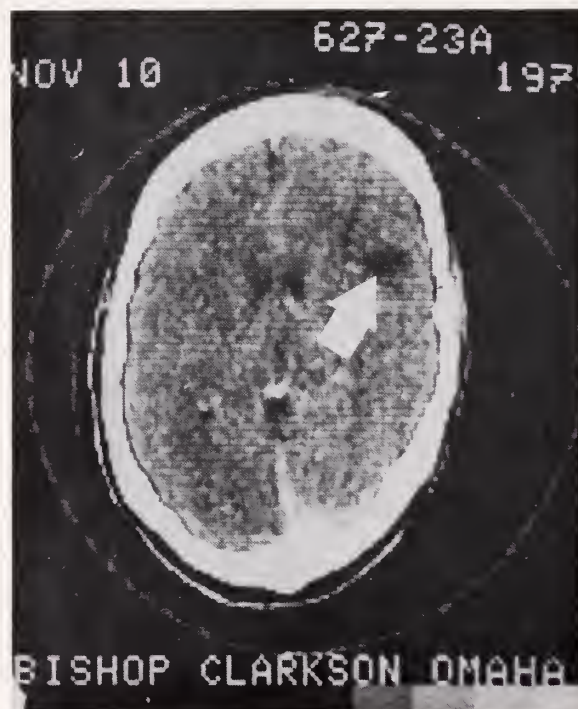
4-A



4-B



4-C



4-D

Figure 4

Head CT of Case 4. Figures 4-A and 4-B performed without contrast enhancement show a low density cyst (large arrow) and area of calcification, Figure 4-A (small arrow). Figures 4-C and 4-D are performed with contrast enhancement (Renografin 30) at levels similar to Figures 4-A and 4-B. Figure 4-C shows the vascularity (large arrow) of the mural nodule Grade I astrocytoma in addition to the cyst (small arrow) and calcification. Figure 4-D shows the cyst (large arrow) and vascularity just medial to the tip of the arrow head.

tumor recurrence by the oldfashioned method of examining for further deterioration of visual acuity and/or visual fields. The CT scan with contrast enhancement played a pivotal role in the follow-up of this tumor case when it revealed a residual tumor mass. Then, only as a result of the CT findings was the patient treated with radiation therapy during which time the visual fields improved.

Initially, in Case 3, one had at best no physical signs to even suggest a parasellar lesion and only a hint of suprasellar calcification on the poor quality portable skull x-rays. Therefore, it came as no small surprise when the CT clearly revealed the large suprasellar, calcific and vascular mass lesion. All that remained was to differentiate this mass from an aneurysm for which reason the arteriograms were performed.

Because the right carotid arteriogram failed to diagnose or localize the tumor and the technetium brain scan did not provide a highly defined localization, Case 4 was operated upon solely on the basis of CT diagnosis and highly specific localization. In the past, before CT, patients similar to Case 4 would have been followed at routine intervals with repeat neurologic examinations. But, as even neurologic signs do not always provide the pinpoint localization necessary for neurosurgery, further hospitalizations in addition to a repeat arteriogram or arteriograms and other diagnostic neurologic procedures would have been required — all of this would have increased the patient's expenses and provided time for the tumor to continue slowly growing, slowly invading, producing permanent neurologic deficits and possibly eventually resulting in something less than a total cure.

CT scanning is a safe, noninvasive neuro-radiologic investigation which provides for simplified patient evaluation and management and replaces other formerly routine invasive and time consuming procedures which as associated with patient discomfort and occasionally morbidity and mortality. CT produces a quality and quantity of neuro-radiologic information not previously available. Because of its ability to demonstrate the extent of the disease process and to localize it accurately, it is now possible to

elucidate multiple lesions in different brain regions during a single comprehensive study and to simultaneously study the role of secondary pathologic factors such as mass effect, edema and hemorrhage. Sequential follow-up examinations can be used to monitor a patient's response to medical, neuro-surgical or radiation therapy, to evaluate patients who fail to improve or who deteriorate, and to detect the development of long term tumor and treatment effects such as hydrocephalus, necrosis and atrophy. In certain, select cases, eg. Case 4, one may almost approach preventive medicine with the use of CT as a neuroradiologic procedure.

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Cryogenically Preserved Human Semen: Clinical Applications

Births Following Artificial Insemination With Frozen Semen

In 1953, Bunge et al¹ reported the births of four normal children following artificial insemination with frozen human semen. Since that time, over 1,000 births have been reported to occur following the utilization of cryopreserved human spermatozoa.² The percentages of spontaneous abortions and congenital anomalies in the term babies were 12% and 1%, respectively, incidences which are lower than those reported for the general population.

In the past, a major hindrance to the routine use of frozen semen was a significant loss of sperm motility following freezing. By utilizing only those donors whose spermatozoa survive the freezing process well and by using selected buffers and improved techniques of cryopreservation, the percentage of sperm motility following freezing and thawing is now generally 70-90% of that observed prior to freezing.

Role of Semen Banks

In addition to research capabilities, sperm banks throughout the country provide services to physicians and their patients in the three following areas: 1) long-term semen storage, 2) semen concentration in male infertility for subsequent artificial insemination by husband (AIH), and 3) semen storage for artificial insemination by donor (AID).

Long-Term Storage of Frozen Semen

Long-term semen storage is available for

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men who wish to maintain their fertility potential; these men include those who anticipate having a vasectomy, those about to undergo radiation therapy, chemotherapy, or a surgical procedure which might render them infertile, and those who fear becoming infertile in the future for other reasons. Numerous specimens can be collected, processed, and stored in liquid nitrogen for subsequent artificial insemination by the husband's semen (AIH) at a later date. Normal births have occurred following artificial insemination with semen which was stored in liquid nitrogen at -196° C. for over ten years.²

Sperm Concentration

A common cause of male infertility is a low sperm count (oligospermia). Conceptions have occurred following AIH with concentrated, frozen, and pooled semen specimens from oligospermic men. This procedure is successful only in selective cases, since oligospermic samples often show poor recovery after freezing and thawing. At the present time, the only way to determine the feasibility of pursuing this possibility in an oligospermic male is to concentrate and

freeze at least one specimen to determine the degree of post-freeze viability.

Recent reports^{3,4} indicate that approximately 5% of oligospermic men have chromosome abnormalities, some of which cause the individual to be at-risk in producing genetically defective offspring. Accordingly, in order to eliminate this risk, it is our policy that chromosome studies be done on men who are oligospermic (for no known reason) prior to semen concentration attempts or prior to other attempts to improve semen qualities.

Artificial Insemination by Donor (AID)

Artificial insemination by donor (AID) is an endorsed and accepted medical procedure in the treatment of childless couples in which the husband has an infertility problem, or in couples who have specific genetic problems which place them at risk in producing an abnormal child. In 1966, between 5,000 and 10,000 births occurred following AID in the United States.⁵ Since that time, the annual number has been progressively increasing. The increased utilization of AID for couples in which the male is infertile, is readily explained by the widespread use of contraceptives and by the liberalization of abortion laws — factors which have severely decreased the opportunity for adoption.

Because of an inherent loss of spermatozoan motility in the freezing process, utilization of fresh semen for AID is generally preferable. However, semen from donors with specific or unusual genetic characteristics is not always available for AID at a particular place and at the appropriate time. This problem is readily resolved by the use of frozen semen. Other advantages of the utilization of frozen semen over fresh semen are:

- a. The inconvenience of having a particular donor present at a specific time is avoided.
- b. The physician has a greater variety of donors from whom to choose.
- c. Each semen specimen can more easily be analyzed prior to insemination in order to insure adequate semen qualities.
- d. Semen of consistently high quality can be used from the same donor for consecutive

daily inseminations around the time of ovulation.

- e. Semen can be easily shipped over long distances to physicians who do not have access to semen donors.
- f. The physician can maintain the semen in his office for several days, thus allowing inseminations to be performed at any convenient (an appropriate) time.
- g. A woman could more easily be offered the opportunity of having the same donor for a second pregnancy.
- h. There is sufficient time to obtain a gonococcus report on each ejaculate before use.

This latter point becomes important in light of a report by Handsfield,⁶ who included culturing for *Neisseria gonorrhoeae* as part of routine military examinations he performed. Of 2,628 men examined, 59 were shown to be infected with gonorrhea; in the infected group, 68% were asymptomatic for the disease.

If gonorrhea did not survive the freezing process, there would be no advantage in culturing specimens to be frozen; however, Sherman⁷ reported that the causative agent survives the cryopreservation process.

Human Semen Banking in Nebraska

Cryogenic storage facilities were established at the University of Nebraska Medical Center in October 1975, to accommodate local needs and to provide services to physicians in Nebraska and surrounding states. Called the Genetic Semen Bank, because of its close working relationship with the existing Human Genetics facility at the Medical Center, the Bank has an advisory board made up of four physicians, a hospital administrator, a lawyer, and two clergymen, who are available for consultation by the Genetic Semen Bank staff.

While we do not believe that frozen human semen should be exclusively used, we do feel that it should be considered as part of the overall approach to artificial insemination in infertility and subfertility problems.

During the past year, there has been reasonable demand and success in the long-term semen storage and sperm concentration

aspects of the Genetic Semen Bank; however, there has been an even higher demand for providing donor semen to physicians in Nebraska and surrounding states.

Donors are screened for use in artificial insemination of a woman whose husband is sterile or, in selected cases, in couples who are "at risk" for producing genetically defective children. Although it cannot be guaranteed that any child born following artificial insemination with semen from a donor screened by the Genetic Semen Bank will not have a genetic defect, this possibility is minimized by requiring that the following procedures be performed on each prospective donor:

1. Analysis of a four-generation family history.
2. Biochemical tests, if indicated by the family history or ethnic background, to rule out the carrier status for specific genetic diseases.
3. Semen analysis.
4. Screen for syphilis.
5. Screen for hepatitis.
6. Chromosome analysis to rule out the carrier status for chromosome abnormalities.
7. Screen of each separate semen specimen for *Neisseria gonorrhoeae*.

If there is a report of any condition in the family history which would put the particular donor at risk for producing a child with a genetic problem, that particular donor will not be used unless the heterozygotic state can be ruled out by biochemical tests. If any of the other tests show undesirable results, the potential donor is not used for the donor

program. More than sixty potential donors have been screened; of these, only nine have passed the screening tests and are available as donors. All donors are fathers of at least one child.

After obtaining a physical description of the couple from their physician, attempts are made to match characteristics of the donor (eye color, hair color, stature, blood type, ethnic background, etc.) with those of the husband. The physician is then sent physical characteristics and results of laboratory tests on at least two suitable donors, from which he and his patients can select the donor of their choice.

When the physician has determined the tentative date(s) for artificial insemination, the semen is sent to him by courier, bus, or plane. The semen is shipped in a liquid nitrogen container which will maintain the semen in a frozen state for approximately twelve days. The semen is frozen in $\frac{1}{2}$ ml straws (2-5 straws are provided per insemination depending upon the sperm density and motility) which can be removed from the liquid nitrogen and thawed at room temperature prior to performing the insemination.

The importance of ruling out female infertility factors and the necessity for careful timing of artificial insemination to correspond with ovulation cannot be over-emphasized. Experience at the Genetic Semen Bank thus far indicates that over 80% of patients conceive following AID with frozen semen, if the above two criteria are met.

References are available on request from the author.

The Other Face of Cholesterol

EVERY housewife knows what causes heart attacks. It is cholesterol. This chemical which few outside of the medical-chemical profession can describe, is rapidly assuming the character of a poison in the popular mind. It is a material to be avoided in the diet at all costs while the virtues of low cholesterol foods are extolled by radio and TV hucksters who admittedly have not the slightest idea what cholesterol is.

It is not the purpose of this article to belittle in any way the possible role of hypercholesterolemia in cardiovascular disease. There would appear to be enough circumstantial evidence to indicate that serum cholesterol values above a certain level in humans are indeed injurious to health, and that efforts should be made to bring them back at least into the normal range.

However, in all the concern about the contribution of cholesterol to cardiovascular disease, there is little thought given to the other face of the "cholesterold coin" — its absolute requirement for normal body function. In fact it is conceivable that one would die sooner with too little cholesterol than with too much.

It is the purpose of this article to review a few of the other aspects of this compound that are so often overlooked. This seems particularly appropriate at this time as the biochemistry of cholesterol is rapidly being elucidated. Hopefully as a more rounded view of the need for and use of cholesterol by the body is obtained, a better understanding of its role in atherosclerosis and its place in the human diet will also be determined.

The body's need for cholesterol can probably best be summarized by reviewing what it does. First, cholesterol is a necessary component of many membranes that form parts of the cells of the body.¹ Semipermeable membranes are necessary for cellular function, and if these membranes are destroyed by lack of cholesterol or by other

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means, the cell dies. The death of the organism is merely the death of many cells. In this regard, cholesterol makes up as much as 50% of the myelin which surrounds nerves. It therefore is necessary for proper nerve conduction and brain function.

Cholesterol is also the precursor for all steroid compounds in the body. These include the bile salts, vitamin D, and the steroid hormones. It takes only a superficial knowledge of biochemistry or physiology to realize the impossibility of reproduction without the sex hormones, estrogen, progesterone, and testosterone, the difficulty of digestion without bile salts, the problems of proper bone formation without vitamin D, and the disturbance of metabolism which results from lack of cortical hormones.

Finally, cholesterol is necessary for the formation of plasma lipoproteins. The human organism can transport lipids from one part of the body to another only by means of a complex process that is dependent upon protein-lipid combinations. Without these lipoproteins which always contain some cholesterol, lipid metabolism in the body would be completely deranged.

In order to insure a sufficient supply of cholesterol for its needs, the body has devised intricate mechanisms for the synthesis of cholesterol and for the control of this synthesis. Initially, studies of cholesterol metabolism were centered in the liver and the basic steps in the biological synthesis of cholesterol in liver were elucidated 15-20 years ago. A feedback mechanism was also found whereby excess cholesterol reduces synthesis of cholesterol in the liver. This has led to the concept that the amount of cholesterol in the diet is relatively unimportant because as intake goes up or down, liver synthesis goes in the opposite direction

and thus the amount of available cholesterol remains constant.

However, this appears to be only partially true in man. It is now becoming apparent that the liver is not the only organ for cholesterol synthesis. In some species the intestine may be a major (if not the major) cholesterol synthesizing organ of the body. Moreover, cholesterol synthesis in the intestine is not under feedback control by cholesterol, but rather is regulated by the amount of bile salts in the intestine. In addition, a number of other regulators of cholesterolgenesis have been found, which are activated by such conditions as stress and fasting. Also, a number of proteins and steroids have been partially purified which inhibit or stimulate cholesterol synthesis in various organs.

Cholesterol synthesized by the liver and intestine, or ingested, is the source of most if not all of the cholesterol present in blood. However, most tissues of the body are able to synthesize cholesterol, probably by reactions similar to those worked out for the liver. This cholesterol normally does not enter the plasma. Synthesis of cholesterol by some cells is often low when serum cholesterol levels are high, the cells taking their cholesterol from the blood. Under hypocholesterolemic conditions, however, these cells synthesize their own cholesterol.

The factors that determine the amount of cholesterol actually carried in the blood have not all been defined. The amount of dietary lipid, especially cholesterol, has received much attention in this regard, but as indicated above, other factors must undoubtedly be involved. A very important problem in the field of cholesterol metabolism would appear to be the determination of a true normal serum cholesterol value for man. The range of normal values usually given is wide (140-300 mg/dl), since different groups of people throughout the world have been found to have average serum cholesterol levels varying from 140 mg/dl (for Japanese farmers) to 300 mg/dl (for American business men).² Whether serum cholesterol values determined from such diverse groups of people with different dietary habits and modes of living can be said to be normal or to represent in any way the

physiologically most desirable level of serum cholesterol is not known.

The fact that many tissues preferentially use cholesterol from the blood suggests that a certain level of serum cholesterol may normally be desirable. It is not impossible that the cholesterol-synthesizing ability of some tissues might be deficient during certain portions of the life cycle. A likely time for a shortage to occur, for example, could be in the early developmental stages of the organism. At such times serum cholesterol might normally supply the cellular deficit. Inadequacies in serum cholesterol might then result in metabolic disturbances which would be difficult to trace to the cholesterol deficiency itself.

In considering a sub-normal level for serum cholesterol, it is of interest to determine if hypocholesterolemic states are described in the literature. A search of the literature reveals several references along this line. Thus, reduced serum cholesterol levels (136-142 mg%) have been reported in hyperadrenal states³ and in hirsutism in women.⁴ In these cases the hypocholesterolemia may have been due to excessive use of cholesterol for the synthesis of other steroids. There also appears to be a hypocholesterolemia associated with some cases of anemia which may in turn be due in part to a defect in the ability of tissues to esterify cholesterol.⁵ Since the ratio of serum free to esterified cholesterol tends to remain constant, inability to form esterified cholesterol would result in reduced esterified, free, and total cholesterol.

An additional disorder in which cholesterol is very low and which shows effects which might be related to cholesterol deficiency is abetalipoproteinemia.⁶ This is a hereditary disease in which the body is not able to synthesize β -lipoproteins. This is probably due to a defect in the synthesis of the necessary apoproteins. The cholesterol content of the plasma is reduced to 1-2 mg % as a result of this. Other lipid constituents of the blood such as phospholipids and triglycerides are also reduced and lipid transport in the blood is generally disturbed. The disease is accompanied by changes in the shape of blood cells and general degradation of the CNS, both of which conditions might

When pain complicates acute cystitis*

Azo Gantanol[®]

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl

for the pain for the pathogens



□ **Early relief of painful symptoms** such as burning and pain associated with urgency and frequency.

□ **Effective control of susceptible pathogens** such as *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

□ **Appropriate antibacterial therapy:** up to three days therapy with Azo Gantanol, then 11 days with Gantanol[®] (sulfamethoxazole), 0.5 Gm tablets.

*Nonobstructed; due to susceptible organisms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies.

Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura,

hypoprothrombinemia and methemoglobinemia); allergic reactions (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); G.I. reactions (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); CNS reactions (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); miscellaneous reactions (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Azo Gantanol is intended for the acute, painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

Note: Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE **DYAZIDE®**

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

MAKES SENSE

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

Warning

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Indications: When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If then, the patient should stop nursing. Adequate information on the adverse effects is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids).

Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis.

'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions:

Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions;

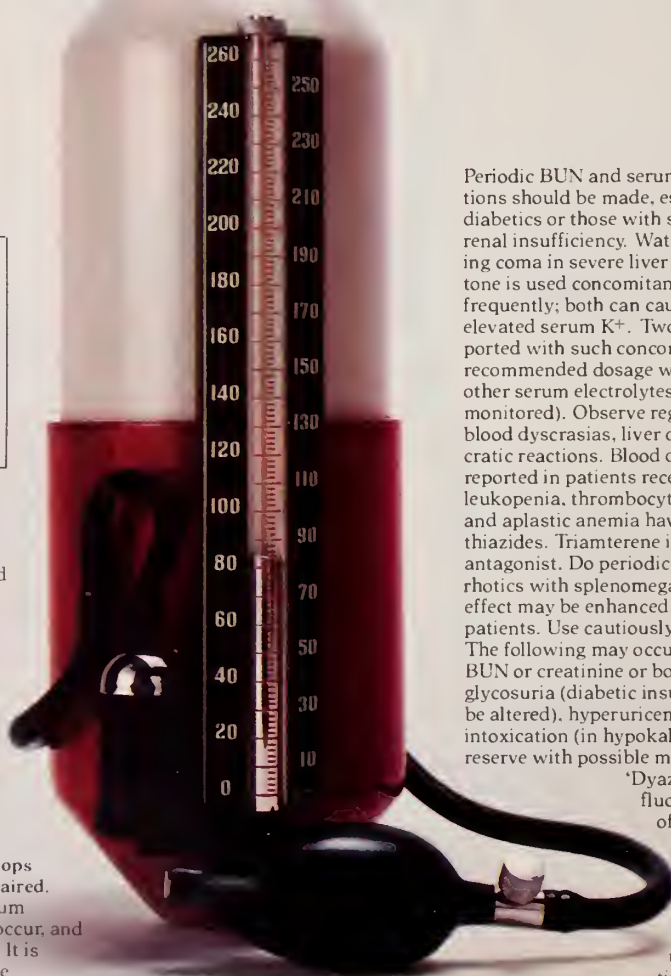
nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

SK&F CO., Carolina, P.R. 00630

SK&F CO.
a SmithKline company

**FOR LONG-TERM CONTROL
OF HYPERTENSION*
SERUM K⁺ AND BUN SHOULD
BE CHECKED PERIODICALLY.
(SEE WARNINGS SECTION.)**



THREE-IN-ONE THERAPY AGAINST TOPICAL INFECTION

Neosporin[®] Ointment

(Polymyxin B-Bacitracin-Neomycin)

This potent broad-spectrum antibacterial provides overlapping action to help combat infection caused by common susceptible pathogens (including staph and strep). The petrolatum base is gently occlusive, protective and enhances spreading.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Neomycin

Staphylococcus
Haemophilus
Klebsiella
Aerobacter
Escherichia
Proteus
Corynebacterium
Streptococcus
Pneumococcus

Bacitracin

Staphylococcus
Corynebacterium
Streptococcus
Pneumococcus

Polymyxin B

Pseudomonas
Haemophilus
Klebsiella
Aerobacter
Escherichia

In vitro overlapping antibacterial action of
Neosporin[®] Ointment (polymyxin B-bacitracin-neomycin).

Neosporin[®] Ointment

(Polymyxin B-Bacitracin-Neomycin)

Each gram contains: Aerosporin[®] brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is

affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching, it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

COLBY PROCLAIMS WOMAN SUFFRAGE

Sigs Certificate of Ratification
at His Home Without
Women Witnesses.

MILITANTS VEXED AT PRIVACY.

Wanted Movies of Ceremony,
But Both Factions Are

WASHINGTON, Aug. 26, 1920—



TRUMAN CLOSES TED NATIONS CONFERENCE WITH PLEA TO TRANSLATE CHARTER INTO DEEDS

NEW WORLD HOPE

President Hails 'Great
Instrument of Peace,'
Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing
Ovation as Executive
Pictures Peace Gain

Social Security Bill Is Signed; Gives Pensions to Aged, Jobless

Roosevelt Approves Message Intended to Benefit 30,000,000
Persons When States Adopt Cooperating Laws—He Calls
the Measure 'Cornerstone' of His Economic Program

SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution
is Sent to House, Where
Passage is Expected

WASHINGTON, March 10,
1971—The Senate approved

WASHINGTON, Aug. 14,
The Social Security Bill, pro-
a broad program of unemploy-
insurance and old age pen-
and counted upon to benefit
20,000,000 persons, became law
day when it was signed by Pres-
dent Roosevelt in the presence of
those chiefly responsible for
ting it through Congress.

Mr. Roosevelt called the measure
"the cornerstone of my economic
program," which is being completed
measures complete
right to the end of the war.

the Draft Ends Now

WASHINGTON, Jan. 27,
1973—"With the signing of
the peace agreement in
Paris today, and after re-
ceiving a report from the
Secretary of the Army that

"If we fail to use it," he declared
to the solemn final meeting of the
delegates, "we shall betray all of
those who have died in order that
we might meet here in freedom and
safety to create it."

"If we seek to use it selfishly—for
the advantage of any one nation or
any small group of nations—we
shall be equally guilty of that be-
trayal."

Fervent Interpolation

The President, speaking in the
auditorium of the War Memorial
Opera House, built in memory of
sons of the Golden Gate city who
gave their lives in the first World
War, in which he himself served,

seemed to give unconscious expres-
sion to the solemn feeling of the
moment, at the outset of his
address, with the words,

"We are gathered here today
to mark the beginning of a new
era in the history of the world."

"We are gathered here today
to mark the beginning of a new
era in the history of the world."

"We are gathered here today
to mark the beginning of a new
era in the history of the world."

"We are gathered here today
to mark the beginning of a new
era in the history of the world."

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy—and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information

is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA

THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST., N. W., WASHINGTON, D. C. 20005

be expected in view of the importance of cholesterol in membrane and myelin formation and integrity.

The considerations discussed above indicated the importance of cholesterol to the functioning of our bodies and our overall well being. Certainly its relationship to atherosclerosis, as important as that might be, is only a part of its metabolic function and, as suggested before, perhaps the lesser part. Concentration on the relationship between hypercholesterolemia and atherosclerosis may in fact blind us to the other face of the cholesterol coin. There has been relatively little work done on the disorders that reduced cholesterol in tissue or blood may cause. Normally the body appears to be capable of producing adequate amounts of cholesterol and only in rare diseases do we find a possible hypocholesterol effect. However as we try ever more desperately to lower serum cholesterol levels with new and

more potent drugs, it would appear wise to keep in mind that there must be some lower limit to which cholesterol concentrations in blood and cells can be reduced without causing serious physiological disorders. What this lower level is we do not know, but it can be hoped that future research will define it more satisfactorily.

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Down Memory Lane

1. Progressive students have been learning to use surgical diathermy for some years, although it has had a rather up-hill climb and its acceptance in practice has been handicapped because of the rather seemingly exaggerated claims made for its sister modality, medical diathermy.

2. You see quite a number of cases with no palpable swelling of the thyroid; yet a careful check-up will show a definite thyroid toxicity.

3. I became convinced that most of these post-operative antiseptic dressings, instead of relieving the patient, actually caused so much irritation and added so much infection that healing was delayed rather than helped and that instead of cleaning up the wound and assisting the healing process the dressings and their attendant disturbance often delayed healing and impaired the result.

4. A fracture through the trochanter will always unite. Sometimes there is distortion or shortening, but still the patient has a serviceable hip.

5. You may infer what you please.

6. The requirements for graduation in medicine in the early Eighties, speaking generally, were three years of study under a preceptor, including two courses of lectures at medical college.

7. Surgeons join tissues: lawyers join issues.

8. This number of the Journal completed the twelfth volume.

9. We have it from the American College of Surgeons that the average cost of a patient to the hospital over the United States is \$5.35 and that the minimum is about \$3.60 per day.

10. A correspondent asks "whether a Doctor of Osteopathy enjoys all the rights and privileges to practice medicine that we M.D.s do?"

Nebraska State Medical Journal
December, 1927

President's Page

LET CHARLIE DO IT.

I'm mad at the AMA. I'll join the County and the State Medical society but I won't send a dime to the AMA because they don't do what I want them to do. How often have you heard such a remark? And it's true, one's personal views often do not coincide with the AMA but honestly, would you expect it to always do so?

Take your own family, does every member always agree on everything? Of course not. Many times there is disagreement so violent that one member leaves the family but usually the disagreement is settled or dissipated and the main function and harmony of the family goes on.

So it goes with the AMA, the biggest family we have in the medical profession. All the states, all the various parts of the country, all the ethnic groups, all the different philosophies are represented and they comprise the greatest influence in the medical care field today.

Pulling out of the AMA is not going to make the AMA greater, it's not going to make you greater either, in fact, you both will be weaker.

Respect the other person's viewpoint. The AMA has to respond to the way the majority of its members react and by being a member you might help to make your viewpoint that majority. If you are not a member of the AMA because of something with which you did not agree, think of all the things they have done with which you did agree.



In order to be a strong, viable organization the AMA needs your money and your support. When dues time comes around this year be sure to sign up for the AMA. They speak for all the doctors in the political arena and believe me medicine is needed in and for that political arena but don't let Charlie do it all. Be loyal, carry your share of the financial load of maintaining a viable influence in health care. Send in your dues and join the AMA and don't forget your state and county societies.

Arnold W. Lempka, M.D.



The Auxiliary

AMA AUXILIARY LEADERSHIP CONFLUENCE CHICAGO — OCT. 9-12

Four of us from Nebraska, the president, president-elect, and two county presidents-elect attended the Leadership Confluence in Chicago in October. It is my personal opinion that this type of leadership training is more productive than anything else our National Auxiliary does for the state auxiliaries. On Monday all four of us were able to get an overview of the five priorities of the National Auxiliary — AMA-ERF, Communication, Membership, Legislation, and Project Bank. It is with a real sense of pride, and we watched our own Dorothy Olson from Omaha, the National Legislative Chairman, conduct the Legislative Seminar. On Tuesday, eight topic seminars were offered and each of us chose four to attend. The following reports are made by the other three delegates on one of the seminars they attended.

Dorothy Matson, State President

VOLUNTEER SERVICES FOR THE AGING

It has become evident that retirement in a nursing home is not always in the best interest of the elderly person. Current thought is being directed toward the development of more volunteer services which would give support to the aging person who can stay at home and remain a respected part of that community.

The Medical Auxiliary has been challenged to set the pace for improving the life style of the aging and support the Physicians by keeping them informed as to the community services available to their patients.

By learning more about the aging and their needs, surveying our existing community services and acquainting ourselves with the leaders who would lend support, our ingenuity would soon spark some new services for those "old folks at home."

Mrs. Harry D. Shaffer
President-Elect

ON BEING A WOMAN

This seminar was presented by Marcia Storch, M.D. F.A.C.O.G. She is an Assistant Clinical Professor of Obstetrics/Gynecology at Columbia University and an Attending Physician at Roosevelt Hospital.

She opened the seminar by commenting on the rapid change in the practice of Medicine. Technology has moved very quickly yet the women's movement has fallen backward as far as the issue of equal pay for equal work. This does not have to take away from feminism. Women are wanting better educations and job opportunities and more respect for women as a sex. Dr. Storch feels there is still an attitude of contempt as far as treating a woman as a "great" in her field. She stated 2/3 of the women working today are forced to work because of their husband's inadequate income.

Dr. Storch answered many questions presented by the Doctor's wives concerning such topics as breast cancer and treatment, sterilization, hormone therapy and menopause.

Barbara J. Peck
President Elect
Adams County

SEMINAR NO. 7

THE FAMILY UNIT — SHIFTING VALUES

Life is far better now for nearly all, but the quality is deteriorating. People are social, so values must be developed telling people what they must do to hang together. Value changes are painful. Often values clash with one another. Parents strive to teach children to meet life's challenges, but they pass on a feeling today, that this cannot be accomplished.

History has shown periods of value changes. In the 1940's, during World War II, the woman's role was that of "Rosie the Riveter." In the 1950s when Sputnik was sent aloft there was panic to improve education. In the 1960's was war on poverty, with programs such as Headstart. In the 1970's, the revolution of biological and legal control over the child.

The great parental dream, amidst the world of ever changing values, is to produce a child who can survive in today's society and be productive.

Mrs. Roger A. Cutshall (Isolde)

Picture Gallery

1977 NMA FALL SESSION



Doctor Harry W. McFadden, Jr. presiding at House of Delegates session.



Mr. Larry Yarbrough of Sandoz Pharmaceuticals describing Sandoz Award.



Presentation of Sandoz Award to Doctor Frank Cole, Editor of the NEBRASKA MEDICAL JOURNAL.



Presentation of Sandoz Award to Doctor Frank Cole, Editor of the NEBRASKA MEDICAL JOURNAL.



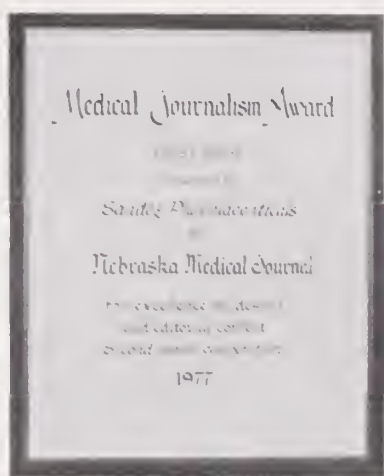
Doctor Frank Cole addressing NMA House of Delegates.



Doctor Frank Cole and Mr. Larry Yarbrough.

Picture Gallery

1977 NMA FALL SESSION



The Sandoz Award.



Doctor Guy M. Matson, Chairman of the Advisory to the Auxiliary Committee, addressing the NMA House of Delegates.



Doctor Jerald R. Schenken addressing NMA House of Delegates.



House of Delegates Reference Committee.

Our Medical Schools

U of N appoints vice-chancellor.

The University of Nebraska Medical Center has appointed Dr. James V. Griesen vice-chancellor effective January 1, 1978.

Dr. Griesen will be in charge of the Medical Center's academic resources, which include the library and the continuing education and biomedical communications center. Dr. Griesen will also be the academic officer for the Medical Center in relating to other campuses of the University. He will also represent the chancellor in academic matters.

Dr. Griesen has been an associate professor and director of the office of educational resources and research at the University of Michigan. For the past two years he has devoted the major portion of his time to institutional development. One of the principal projects involved development of a construction grant proposal for a new medical campus library. He also has worked on a grant application aimed at building a diabetes research and training center at a cost of 6.3 million dollars.

Dr. Griesen's research has been directed at projects involving curriculum develop-

ment, independent study methods and community-based baccalaureate programs in nursing. He served as consultant to the Department of Health, Education and Welfare to study the educational programs and administrative structures of five Polish medical academies as a preliminary step in establishing a Polish-American medical education exchange program.

Dr. Griesen joined the faculty at Michigan in 1973 as assistant professor and director of the department of postgraduate medicine and health professions education. For five years prior to that he was on the faculty of Ohio State University, where he earned baccalaureate, master's and doctor of philosophy degrees.

RECENT ADVANCES IN INTERNAL MEDICINE; January 18-20, 1978; Omaha, Nebraska; Sponsored by Creighton University School of Medicine: 18 instructional hours. The continuing medical education program of Creighton University School of Medicine is accredited by the American Medical Association. For more information contact: Division of Continuing Education, Creighton University School of Medicine, 2500 California St., Omaha, NE 68178. 402 /449-2550.



Helen L. Hayes, (Mrs. O. R.)
State Chairman, Health Galleries
Fund Raising Committee
Nebraska Medical Association Auxiliary

Mail contribution to:
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P.O. Box 30186
Lincoln, Nebraska 68503.

Make check payable to:
Health Galleries, account 429.

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Total cost of the Health Galleries Project ... \$500,000.00
Goal for support from Medical Community ... 150,000.00*

*House of Delegate action October 1976, recommended that each physician donate \$200.00 over a three year period.

50% of the \$150,000.00 has been raised through contributions made by physicians listed in the Nebraska Medical Journal. All monies raised will be used for the development of the exhibits in the galleries.

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(Continued on next page)

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Between Cases

The History.

Nocturia by night.

Syndromes You May Have Missed.

Job's syndrome, laughing death syndrome.

I Read It.

Approximately 75,000 total hip replacements are now done in this country each year.

On Tumors.

To whom was a tumor benign?

Gould, A: The good professor who murdered the bad little girl.

Postgraduate Gems.

The thing about calling a consultant is that you may have to take his advice.

Anon.

A Million Dollars?

We go on making do and mending, for no-one really wants to answer the question, How much is it worth to save an occasional life?

Lancet 5/31/75:1231.

Section On Dermatology.

If there is any part of the body which literally thrusts the evidence of its advancing years upon whomsoever may look, it is the skin.

Weidman in Cowdry's Problems in Ageing.

Whomsoever, whosoever?

Wait Until Morning: From A Nonphysician.

Never call doctors at night; they don't do you any good anyway; not at night, I mean.

E.H.

I added the not at night I mean.

Words, In This Country.

The vocabulary of an average child of 8 is: 3,600 words.

The vocabulary of an average child of 14 is: 9,000 words.

Words learned per year:
From birth to 8: 450

Words learned per year:
From 8 to 14: 900

Section On Radiology.

X-ray reveals some extreme mild degenerative changes.

Words We Can Do Without.

Subsume, update, I want to say, to whom it may concern, emissivity.

The Physical.

Semi-unconscious.

Quote Unquote.

Does he feel that it is a disgrace for doctors to get sick?

T. Rubin: Reflections in a goldfish tank.

My Favorite Q & A.

This is an excellent question, and the answer is not a simple Yes or No.

Don't Stop.

Sinus arrhythmia, secondary to breathing.

Art Or Science?

If a man hasn't got plenty of good common sense, the more science he has the worse for his patient.

O. W. Holmes.

Tis The Season To Be Silly.

I just set eight clocks and watches back and hour, and I think I was supposed to get up at two AM to do it.

—F.C.

Books



The nervous system; by William F. Ganong, M.D.; 226 pages; limp cover \$8.00; published 1977 by Lange Medical Publications, Los Altos, California.

This is apparently a first edition, and is drawn from the eighth edition of Review of medical physiology. Dr. Ganong needs no introduction; he is Professor of Physiology and Chairman of the Department at the University of California.

The text is conveniently divided into three sections and then into 17 chapters; there are figures and tables and an index, with unnumbered references at the end of each section.

This is a book that deals with physiology, not

disease; I could not find amyotrophic lateral sclerosis or Alzheimer's disease or polymyalgia or spinal cord tumors in the index; it is not that kind of a book. It is physiology, and it is good; it is recommended.

—F.C.

Handbook of pediatrics; by Henry K. Silver, M.D., C. Henry Kempe, M.D., and Henry B. Bruyn, M.D.; 12th edition; limp cover, \$9.00; 723 pages; published 1977 September 1977 by Lange Medical Publications, Los Altos, California.

The book is reprinted every two years and first appeared in 1955. It is small enough to fit into a large coat pocket. It has an index and an appendix. It is conveniently divided into 32 chapters. There are many tables, and the print is good. All the authors are named Henry.

Recommended.

—F.C.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —

December 3 — North Platte, Elks Lodge

December 10 — Grand Island, Nebraska
Veterans Home

Session; Frontier Hotel, Las Vegas, Nevada; December 8-11, 1977. Write to: Dr. Dennis Beavers, Secretary-Treasurer, 8552 Cass Street, Omaha, Nebraska 68114.

AMERICAN MEDICAL ASSOCIATION —

Interim Session, House of Delegates, December 4-7, 1977, Palmer House, Chicago, Illinois.

AMERICAN MEDICAL ASSOCIATION —

Winter Scientific Program, December 10-13, 1977, Miami, Florida.

NEBRASKA OBSTETRIC GYNECOLOGIC

SOCIETY — 24th Annual Scientific Session; Frontier Hotel, Las Vegas, Nevada; December 8, 9, & 10, 1977. Write to: Dennis Beavers, M.D.; Secretary-Treasurer, N.O.G.S., 8552 Cass Street, Omaha, Nebraska 68114.

NEBRASKA MEDICAL ASSOCIATION

ANNUAL SESSION — April 30 - May 3, 1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION —

Annual Convention, June 17-22, 1978, St. Louis, Missouri.

NEBRASKA OBSTETRIC GYNECOLOGIC SOCIETY (NOGS) — Annual Scientific

NEBRASKA MEDICAL ASSOCIATION

FALL SESSION — September 21-23, 1978, Lincoln Hilton Hotel, Lincoln, Nebraska.

Physicians' Classified

Advertisements in this column are run at a rate of twenty cents per word with a minimum of \$10.00 per insertion. Copy must be received by the fifth of the month preceding date of publication and should not exceed 50 words. Each advertisement will be taken out following its first appearance unless otherwise instructed. Where numbers follow advertisements, replies should be addressed in care of The Nebraska Medical Journal, 1902 First National Bank Building, Lincoln, Nebraska 68508.

FAMILY PHYSICIAN — Opportunity to join six-man group in beautiful Northwest Iowa. New clinic building of 10,000 square feet is located next door to 88-bed county hospital. Unusually progressive community of 10,000 offers 3,000 acre lake, 85 acres of parks and recreation, local liberal arts college, and many family interest features. Generous salary with incentive, malpractice insurance, liberal vacation and seminar time, partnership in one year. Contact: D. A. Pritchard, Administrator, Buena Vista Clinic, 620 Northwestern Drive, Storm Lake, Iowa 50588.

STAFF PHYSICIAN FOR FAMILY PRACTICE RESIDENCY PROGRAM. Duties include teaching and supervising residents, plus direct patient care. Will join two-full-time physician faculty in new model office. Approved program is affiliated with University of Iowa College of Medicine. Good salary and fringe benefit package, plus opportunity for postgraduate study. Contact: Charles A. Waterbury, M.D., Program Director, 441 East San Marnan Drive, Waterloo, Iowa 50702.

PSYCHIATRIC RESIDENCY: Vacancies for (PG2 through PG4 only) position for January 1, 1978, and July 1, 1978, for those who have a regular Iowa license or can obtain one by reciprocity or via FLEX. Prepare for career in private practice, community clinics or hospital-based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. The stipends are: 1st Year, \$22,360; 2nd Year, \$23,478; 3rd Year, \$24,674. Intensity and diversity of training program appreciated best by personal visit. T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal Opportunity Employer. Call collect 712/225-2594.

EMERGENCY ROOM PHYSICIAN. Evening hours Sunday through Thursday. Salary. 138-bed hospital located in Grand Island, Nebraska. Contact Don Adams, Associate Administrator, Saint Francis Hospital, P.O. Box 2118, Grand Island, Nebraska 68801.

Tablets Percocet®-5

DESCRIPTION Each tablet of PERCOCET®-5 contains 5mg oxycodone hydrochloride (WARNING: May be habit forming), 325mg acetaminophen (APAP).

INDICATIONS For the relief of moderate to moderately severe pain.

CONTRAINDICATIONS Hypersensitivity to oxycodone or acetaminophen.

WARNINGS Drug Dependence Oxycodone can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence and tolerance may develop upon repeated administration of PERCOCET®-5, and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral narcotic-containing medications. Like other narcotic-containing medications, PERCOCET®-5 is subject to the Federal Controlled Substances Act.

Usage in ambulatory patients Oxycodone may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using PERCOCET®-5 should be cautioned accordingly.

Interaction with other central nervous system depressants Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics or other CNS depressants (including alcohol) concomitantly with PERCOCET®-5 may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Usage in pregnancy Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, PERCOCET®-5 should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

Usage in children PERCOCET®-5 should not be administered to children.

PRECAUTIONS Head injury and increased intracranial pressure The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions The administration of PERCOCET®-5 or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Special risk patients PERCOCET®-5 should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, and prostatic hypertrophy or urethral stricture.

ADVERSE REACTIONS The most frequently observed adverse reactions include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients, and some of these adverse reactions may be alleviated if the patient lies down.

Other adverse reactions include euphoria, dysphoria, constipation, skin rash and pruritus.

DOSAGE AND ADMINISTRATION Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. PERCOCET®-5 is given orally. The usual adult dose is one tablet every 6 hours as needed for pain.

DRUG INTERACTIONS The CNS depressant effects of PERCOCET®-5 may be additive with that of other CNS depressants. See WARNINGS.

DEA Order Form Required.

Endo Inc.

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FOR MODERATE TO MODERATELY SEVERE PAIN

Acetaminophen with the narcotic difference

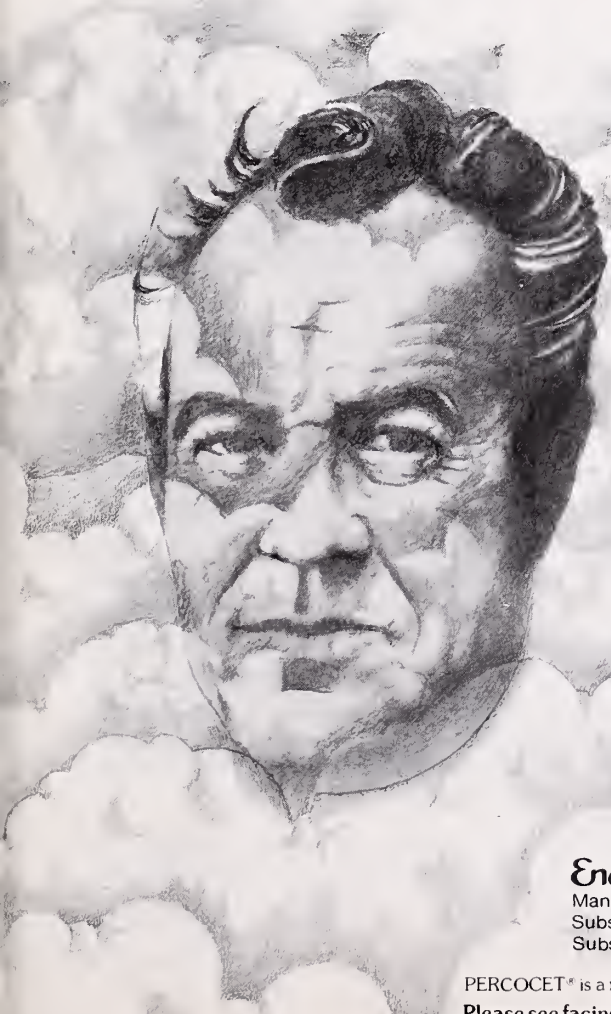
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The narcotic component in PERCOCET®-5 is oxycodone, which is readily absorbed and provides dependable oral analgesia—usually within 15 to 30 minutes. Oxycodone can produce drug dependence of the morphine type and should be prescribed with the same degree of caution appropriate to the use of other narcotic-containing medications.

...aspirin free

Acetaminophen is a non-narcotic analgesic widely used for aspirin-sensitive patients. Equivalent to aspirin in analgesia, it complements the pain relief provided by oxycodone.

The usual dose of PERCOCET®-5 is one tablet every six hours, providing convenience and economy for your patients. PERCOCET®-5 is ideally suited for your patients with aspirin sensitivity, with hemostatic disturbance, with peptic ulcer or on anticoagulation therapy.

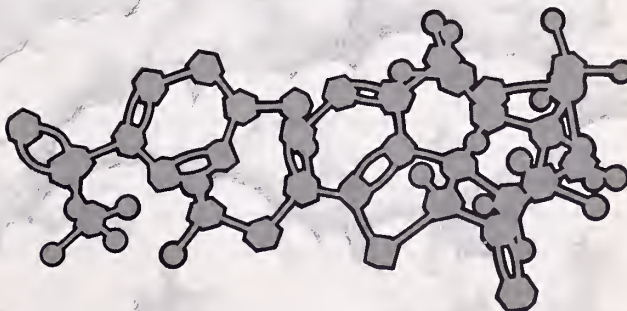


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Percocet®-5

each scored tablet contains 5 mg oxycodone HCl
(WARNING: may be habit forming) and 325 mg
acetaminophen



**When aspirin is
contraindicated.**



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PERCOCET® is a registered trademark of Endo Inc.

Please see facing page for Brief Summary of prescribing information.

WashingtonNotes

M & M & fraud.

President Carter has signed into law stiff penalties for providers who are found guilty of fraud in the Medicare and Medicaid programs.

The new law levies felony penalties to a maximum \$25,000 fine and five years in prison replacing the misdemeanor penalties of up to a \$10,000 fine and one year in prison.

The bill passed overwhelmingly by Congress and sent to the White House is aimed at providers, and retains misdemeanor penalties for recipients convicted of defrauding the programs.

Providers found guilty of fraud and abuse will be treated as felons and punished by up to five years in jail and/or a fine up to \$25,000. Previous law considered such violations as misdemeanors rather than felonies.

Illegal "kickbacks" among providers are defined, and institutions are compelled to submit ownership data to the government. One of the main targets of the bill was so-called "Medicaid mills" and kickbacks uncovered in several large cities.

The disclosure requirements do not apply to individual physicians or to groups of physicians.

States must form antifraud units separate from their health departments in order to qualify for Medicaid funding.

Other provisions:

****States can supersede PSRO activities** covering Medicaid if they demonstrate to the federal government that PSROs are making decisions that "have a detrimental effect" on state Medicaid spending.

****The Health, Education & Welfare Department** has given the authority to select regional or national intermediaries if it concludes that existing intermediaries within a state are doing a poor job.

****Most Medicaid reimbursement** would have to be made within 30 days by the states.

Meanwhile, HEW Secretary Joseph Califano told a television panel show that taxpayers are losing at least \$1 billion a year through payments to ineligible people.

Health care costs.

Final Congressional hearings on the Administration's stumbling Hospital Cost Containment program have been conducted by the Senate Finance Committee and all indications are that no legislation will be enacted this year.

Subcommittee Chairman Herman Talmadge (D-Ga.) has said his information from the House side was that representatives are not "overly optimistic" the House will move before the end of the current session.

In an opening statement, Talmadge said he feared the Administration's proposed nine percent "cap" on all hospital revenues could harm efficient hospitals.

Talmadge said his staff has drawn up a set of recommendations for an approach melding some of the Administration's ideas with Talmadge's own long-standing proposal for a thorough overhaul of Medicare and Medicaid hinging on prospective reimbursement for hospitals to encourage efficiency.

The importance attached to the issue by the Administration was evident from a letter sent by President Carter to Talmadge and House health subcommittee chairmen Reps. Dan Rostenkowski (D-Ill.) and Paul Rogers (D-Fla.) declaring that "one of my most important priorities is to secure strong legislation to restrain the skyrocketing increase in health care costs." Carter said "I wish to reaffirm my strong personal commitment to the Administration's Hospital Cost Containment legislation."

The AMA told the subcommittee that a cap is manifestly unfair and would discourage hospitals from improving services.

Robert B. Hunter, M.D., Chairman of the AMA Board of Trustees, said the more admissions a hospital has "the more likely it is to be penalized."

The bill includes medical equipment in physicians' offices under capital expenditure limitations when the cost is above \$150,000. This provision "is both unjustified and unsupportable," said the AMA witness. "Such a limitation would prove onerous, especially for physicians first opening practices as well as for those desiring to modernize offices in order to assure continued quality patient care."

John Alexander McMahon, President of the American Hospital Association, told the subcommittee that the Administration bill "would seriously jeopardize the present and future ability of hospitals to provide quality care to the American people."

Too many operations?

The Congressional investigation of whether there is too much surgery has boiled down to a question of whose study to believe and whose interpretation is correct. Rep. John Moss (D-Calif.), Chairman of the House Commerce Subcommittee on Oversight, insists there is far too much surgery.

Moss attacked the conclusions of a study headed by Ralph Emerson, M.D., President of the New York State Medical Society, that less than one percent of major operations are being performed with less than usually accepted indications.

Moss and his subcommittee have been relying on another study that 17 percent of surgery is not required, extrapolating that there are 2.4 million unnecessary operations yearly and 11,900 deaths from these procedures.

The Emerson study, underway since the late 1960s, used preset criteria for monitoring quality of surgical care, criteria prepared by four state medical schools, the state

Department of Health and the state medical society. In addition to finding less than one percent of major operations questionable, the study found two or three percent of minor surgery in this category.

Karl Pfuetze, M.D., a cardiologist from Kansas City and an expert on surgical statistics, testified that the so-called McCarthy study was employed erroneously by the subcommittee. The finding of a 17 percent difference of opinion on whether surgery should be performed stems only from the fact that there will be a range of from 10 to 20 percent of differing opinion for much elective surgery, said Dr. Pfuetze.

He said that if every surgeon sought the opinion of ten other surgeons on each case, there would often be one or two or three dissenters. But the majority judgment in such cases would be accepted. However, seeking these consultations separately for each case would result in a difference of opinion ranging from 10 percent to 30 percent.

C. Rollins Hanlon, M.D., Director of the American College of Surgeons, said "The College recognizes the need to consider the complexity and cost of surgical procedures as well as the need for broad knowledge of surgical biology, diagnostic skill, and operative skill to make the patient safe for the operation, and the operation safe for the patient."

Saccharin.

The House has gone along with the Senate and approved an 18-month postponement of the proposed Food and Drug Administration ban on use of saccharin.

The Senate wants saccharin products to carry a label cautioning that the sweetener causes cancer in animals and may increase people's risk. The House bill only requires a notice at the store where the product is sold.

REPORTS OF OFFICERS, DELEGATES AND COMMITTEES

FALL SESSION

September 29, 30, October 1, 1977

(These reports appear as originally submitted. For the House of Delegates deliberations, possible changes, and final action, refer to the minutes which follow these reports.)

REPORT OF THE BOARD OF DIRECTORS

Charles F. Ashby, M.D., Geneva, Chairman; Robert B. Benthack, M.D., Wayne; Dwight W. Burney, Jr., M.D., Omaha; Russell L. Gorthey, M.D., Lincoln; Robert J. Morgan, M.D., Alliance.

Through the year, your Board, at its regular meetings, has given close attention to the finances of the Association. While such activity is a regular procedure of the Board, it is especially pertinent this year as the indication of costs exceeding income have become more apparent. At the July meeting of the Board, a detailed review was made of all Association finances and we wish to share with you the results of this review.

There has been a long standing policy to retain one year's operating budget in reserve. The Board, while in concurrence with this policy, has been unable over the past several years to transfer any operating surplus because it has not been available. Consequently, reserves have fallen considerably behind the Association's expenditures. At the July meeting our reserves were approximately 37% of the 1977 budget. This in our opinion, is not a good business practice. In a move to improve the reserve status, the Board approved an appropriation from the Contingency Fund to the permanent reserves. This transfer increased the reserves to approximately 60% of the current budget.

The Contingency Fund was derived from the administration of the Nebraska Regional Medical Program from 1967 to 1977. A portion of the Contingency Fund was retained for the purpose of maintaining financial stability pending any final audit of that program. During the time this program was administered by the Association, certain administrative charges were made against this fund. These service costs will now be transferred to the Association budget in 1978. The Professional Liability fund was also reviewed. The Board finds this fund is still active, especially with regard to the implementation of LB 434. Because of these activities, your Board feels this fund should be retained in its present status at least through 1978.

Other items reviewed by the Board included the Annual Session. As costs for speakers and other related activity continue to increase, we can expect corresponding increases in this activity. There was discussion of initiating a registration fee. However, it is the feeling of the Board that the Annual Session should be provided without charge to the members with these expenditures being paid from Association finances.

The Board reviewed the Headquarters Office and took note that our lease will expire in approximately one and a half years and probably will not be renewed. Because of this, staff has contacted the building manager and potential space is available on another floor within the building. Our review also took cognizance of the intensive utilization of meeting room space within the office and a recommendation has been

made to obtain increased space at such time as the Association moves its office. We are looking ahead to our needs not only for today but five to ten years in the future. The acquisition of additional space would result in corresponding costs. The Board also reviewed possible future activity such as reorganization, increased number of the Board of Directors and accompanying responsibility, CME activity, and the fact that state legislative activity will continue to necessitate corresponding time on the part of the Association.

One key element that cannot be ignored is that of inflation. According to our financial advisors, we can expect a continued inflation rate of 6% plus for the next several years. This level of inflation would add for example, approximately \$15,000 to the 1977 budget if it were carried over and used in 1978.

At the conclusion of this review, your Board devoted considerable time as to its recommendations. While every effort is being made to make efficient use of the members' dues dollar, it is evident to your Board there is a need for additional income if the Association is to meet its obligations both now and in the future. Therefore, your Board recommends to the House of Delegates that dues for active members of the Nebraska Medical Association be increased by \$80, bringing the yearly dues to \$200, and such dues increase be effective on January 1, 1978.

Your Board, as always, will be ready to respond to any questions the Delegates may have.

Respectfully submitted,
CHARLES F. ASHBY, M.D.
Chairman

REPORT OF THE DELEGATE TO THE AMERICAN MEDICAL ASSOCIATION, ANNUAL SESSION

Following the opening ceremonies on Sunday, June 19, 1977 in San Francisco, Joseph A. Califano, Secretary of HEW presented his perspective of the administration's approach to the health care field. He said, "We have set for ourselves an ambitious goal in America: a high standard of health care for everyone — at manageable cost." He further stated that, "the quality care objective has long characterized American Medicine and physicians, but reasonable cost has not been the strong suit of either American Medicine or most of its physicians. We see that not as the fault of the affluent doctors — but as the most serious shortcoming of the health care system." He went on to characterize health care as the third largest industry in the country, one of the most costly industries, and as one which is virtually non competitive in which 70% of patients' services were under the direct control of physicians.

He went on to say that, "National Health Insurance to protect all Americans — is essential (and obviously referring to HR 1818 and S 218) I am pleased to note that you agree on the need and have been developing your own plan."

He solicited support of American physicians in bringing about change in the health care industry but left little doubt that the administration would move forward on NHI with or without the cooperation of organized medicine.

John H. Budd, M.D., in his inaugural address, characterized the AMA as a Voluntary Federation of Physicians, a citadel for the survival of voluntary action, and a chief defender of political pluralism. He

went on to point out that the largest industry in the USA was government (Federal, State and Local) employing 15 million people (18% of the total civilian employment) spending 40% of the gross national product and seeking to add the health care industry to that total.

Actions of the House of Delegates worthy of mention are as follows:

1. The Speaker of the House of Delegates gave a special tribute to Dr. Earl Leininger, former delegate from Nebraska, for his many years of faithful service to the AMA and to American Medicine.
2. Referred to the Board of Trustees the Report of the Council on Long Range Planning and Development which called for the appointment by the Board of Trustees of a full time President of the AMA and the phasing out of the offices of President, President-Elect, and Immediate Past President over a 3 year period, with the proviso that a report be made at the 1977 Interim Meeting and an expression of the desire of the House to retain control of the election of the presidency.
3. Approved substitute Resolution 46 which encouraged physicians within undersigned PSRO areas to review their decisions regarding establishment of a physician controlled PSRO and delineated principles or criteria which should apply to any alternate PSRO that might be established.
4. Referred Report D of the Council on Medical Service regarding Medicare Fee Profile to the Board of Trustees recommending that the Board continue to seek elimination of the "economic index" and pursue a policy whereby prompt revision of individual profiles could be made which are not tied to a previous base in any medically underserved area within a state. Detailed information concerning the methods through which physicians fee profiles are established under Medicare should be widely communicated to the profession through all appropriate channels.
5. Endorsed a National Immunization Program for the prevention and control of communicable diseases as a part of continuous and comprehensive medical care.
6. Rejected Georgia Resolution 68 which called for removal of Federal prohibitions against direct billing and the encouragement of all physicians to use direct billing in their practice.
7. Approved Resolution 18 which instructs the AMA to work with the AHA to see that each physician receives a copy of the hospital bill of each patient he hospitalizes with a progress report at the 1977 Interim Meeting.
8. Adopted Resolution 77 reaffirming an AMA position regarding the patient's and physician's right to seek consultation and opposing the concept of mandatory consultation and closed panels of consultants required by some third party payors.
9. Approved a substitute resolution regarding the AMA's Comprehensive Health Care Insurance Act (HR 1818 and S 218) to wit: Resolved, that the AMA reaffirm its total opposition to the Nationalization of the Medical Profession; and be it further

Resolved, that as a part of the Board of Trustees ongoing consideration of NHI, the House of Delegates refers to the Board of Trustees for study and report at the 1977 Interim Meeting the question of whether or not sections of HR 1818 and S 218 can

be interpreted as vehicles that would permit the nationalization of the private practice of medicine or mandate placing the major burden of health insurance upon any one class of our society, and be it further

Resolved, that each State Medical Society be requested to submit its recommendations with regard to NHI, to the Board of trustees within the next 60 days.

(Your delegate called the attention of the reference committee to the statement of Mr. Califano, Secretary of HEW, regarding his interpretation of the AMA's sponsoring an NHI bill).

10. Referred to the Board of Trustees for further study Resolution 34 opposing direct Medicare payments to Auxiliary Paramedicals.
11. Rejected Louisiana Resolution 62 requesting the introduction of legislation which would permit physicians and other citizens to choose whether to remain in or to opt out of the Social Security Program — but referred to the Board of Trustees California Resolution 17 calling for investigation of the legality and constitutionality and forcing physicians to contribute to the OASDI program and for taking prompt action to permit professional individuals to participate on a purely voluntary basis.
12. Reaffirmed AMA policy regarding the status of residents as both employees and students and support of HR 2222 which supports this policy.
13. Approved Resolution 93 and directed the Board of Trustees to introduce legislation which would provide the same physician billing options under Title XIX (Medicaid) as now provided under Title XVIII (Medicare).
14. Adopted substitute Resolution 11 which commends the appropriate Congressmen for their introduction of legislation which would repeal PL 93-641, the National Health Planning and Resources Development Act of 1974.
15. Approved substitute Resolution 53 (submitted by the Nebraska Delegation): Resolved, that the AMA continue to voice its opposition to HR 6575 and S 1391 (Hospital Cost Containment Act of 1977) as introduced in the 95th Congress.
16. Referred to the Board of Trustees Washington State Resolution 2 calling on the AMA to prepare policies and strategies to deal with strikes, lockouts, job actions, and other work stoppages that affect quality and availability of medical care.
17. Adopted an amended Resolution 30 which calls on the AMA to work with JCAN, State Health Departments, etc. to consolidate hospital reviews and reduce the number of hospital inspections to a minimum.
18. Adopted substitute Resolution 48: Resolved, that the AMA review Federal laws, regulations, and policies utilized in evaluating health care facility needs with the view towards developing legislative proposals, which if enacted, would require Federal hospitals (including VA) and HMO's to participate in the same regulatory processes as do non federal hospitals.
19. Approved substitute Resolution 3 which calls on the AMA to continue its opposition to mandatory "patient package inserts" for all drugs approved for marketing by the FDA.
20. Adopted Resolution 76 which directs the AMA to recommend to the FDA that uniform standards for

clinical investigation of "new drugs" be established in cooperation with similar regulatory agencies in other countries in order to minimize duplicative testing and shorten the process for marketing approval.

21. Adopted substitute Resolution 85: "Resolved, that it is the position of the AMA that Laetrile is a substance which has no proven value as a drug," and referred it to the Board of Trustees for referral to the Council on Scientific Affairs with the following comments:

1. That if Laetrile is made available by legislative edict, it be a substance rather than a drug, and that the participation of a physician not be required.
2. That the AMA reaffirm its support for the protection of the cancer patient through strict adherence to the FDA's established method of scientific testing, and further that it does not approve of any exception to such methods for any particular substance.
3. That the AMA continue to state to all physicians in the country and the general public the lack of scientific evidence for the use of Laetrile in the treatment of cancer and to decry the use of ineffective medications in the treatment of disease.

22. Approved recommendation #1 of the Council on Long Range Planning and Development that the AMA endorse the concept of direct specialty society representation in the House of Delegates as a way to strengthen unity within organized medicine and referred recommendation #2 to the Board of Trustees with instructions to convene a meeting of CLRPD members, Section Council members, specialty societies, and other interested parties to work out a plan for specialty society representation that would enjoy a consensus and report back at the Interim Session in December.

The above represents a rather lengthy "thumbnail sketch" of actions taken by the House of Delegates which considered over 50 reports and over 100 resolutions. It has been a privilege and an honor for me to act as your representative in these deliberations. Your advice and comments regarding matters under consideration at subsequent meetings will be appreciated and is solicited.

Respectfully submitted,
CARL J. CORNELIUS, JR., M.D.
Delegate to AMA

REPORT OF EDITOR, NEBRASKA MEDICAL JOURNAL

Volume LXI of the Nebraska Medical Journal was published in 1976. It contained 65 original articles, so that the average number of scientific articles published in each monthly issue was 5.4; these were written by 128 authors.

There were 50 editorials.

Again, many letters were received and were published complimenting the Journal on the quality of its articles and editorials.

Scientific contributions published in 1976 dealt with hemodialysis, transplantation, breast disease, sideroblastic anemia, congenital heart disease, retroperitoneal fibrosis, weight reduction, malpractice, leukemia, education, diabetes, chloridorrhea, Addison's disease, the retarded, respiratory therapy, student research, osteosarcoma, and many other subjects.

The usual columns are being kept up, including Down Memory Lane, Washington Notes, Medicinews, Our Medical Schools, Welcome New Members, reports of committees and councilors and delegates, President's Page, the Auxiliary, In Memoriam, 50-year practitioners reports, The Letter Box, Picture Gallery, Between Cases, Books, and Coming Meetings.

The Nebraska Medical Journal was entered in the Sandoz Medical Journalism Competition, and we won First Prize. The competition was open to journals with circulation of 3,000 or less (ours is 1,850), and it included the entire United States; and WE'RE NUMBER ONE.

Advertising seems better. Readership is widespread, I am told. It was a very good year for the Journal.

Respectfully submitted,
FRANK COLE, M.D.
Editor

REPORT OF THE CREIGHTON UNIVERSITY SCHOOL OF MEDICINE

It seems only yesterday that I prepared my report for the Annual Meeting of the House of Delegates. Have each of you noticed that the summers seem to be getting shorter?

As I write this report, Creighton University is preparing to commemorate 100 years of its existence as a private university in Nebraska. The theme of the Centennial Year will be "Celebrating 100 Years of Service; Communicating Our Gratitude, Achievements, and Concern; and Committing Our Resources That More May Learn to Serve." It is in this spirit that I share this report with you.

Spring and summer are traditionally times of change in an academic community, and this year was no exception for those of us at Creighton School of Medicine. I am especially pleased to have been able to recruit to the administrative staff of the School of Medicine Dr. Michael J. Haller as Associate Dean. Many of you have known Dr. Haller for years as an active member of your organization, and I know you share my pleasure. Dr. Haller's principal responsibilities will include general supervision of our clinical education and service programs. Five departments have new leadership under acting chairmen. They are Pharmacology — John T. Elder, Ph.D; Pediatrics — Dr. Francis M. Fitzmaurice; Psychiatry — Dr. Emmet Kenney; Radiology — Dr. Allen Dvorak; and Family Practice — Dr. Fred J. Pettit.

In addition, perhaps I should take this opportunity to announce some administrative appointments affecting our sister schools in the Health Sciences. Dr. Robert Gerraughty has been appointed Associate Vice President for Health Sciences to fill the position vacated by Dr. Raymond W. Shaddy. Dr. James Crampton has been appointed Acting Dean of the School of Pharmacy to fill the vacancy created by Dr. Gerraughty's appointment, and Sister Rosalie Sitzman, Ph.D. has been appointed Dean of the College of Nursing.

In addition to administrative changes, I am pleased to announce the establishment of two new programs in cooperation with Creighton Memorial St. Joseph Hospital, our principal affiliated teaching hospital. A new program in Emergency Medicine has been established under the leadership of Dr. Allen Klippel who has joined our faculty from Washington University in St. Louis. In addition, the school and hospital have jointly established a Department of Anesthesiology under the leadership of Dr. John Gordon of Omaha.

For several years I have reported to this body on the progress of our development of the physical plant of the Creighton University Health Sciences Center. I have done so because of my feeling that the development of our Health Sciences Center was of significance to the entire state and indeed to the entire region. Occupancy of the new St. Joseph Hospital and Health Professions Center which will serve as the practice location for the clinical faculty of the School of Medicine is now scheduled for December 17. Planning for all of the details of this massive undertaking is well underway and we are quite confident that the move can be accomplished with a minimum of problems. I am sure you will also be interested to know that we occupied the new Bio-Information Center on the west campus of the University in late May of this year. Our Health Sciences Library, Learning Resources Center, and Biomedical Communications Services are now fully operational in the new location and housed under one roof, easily accessible to students, teachers, and practitioners of medicine, dentistry, pharmacy, and nursing.

Speaking of nursing, I should also point out that the College of Nursing is now fully housed in Unit II of the Dr. C. C. and Mabel L. Criss Health Sciences Center which brings all of the Health Professions Schools at Creighton in close physical proximity.

In April, I reported to you the establishment of a Faculty Committee to review and overhaul the clinical practice plan of our clinical faculty. I am pleased to report that this committee, under the leadership of our new Associate Dean, seems to be making substantial progress in the development of a plan that will appropriately align clinical faculty to the school and to the hospital in our new physical location.

Each year at the time a new class enters our School of Medicine, it is my custom to report to you briefly about the composition of that class. This year our class again consists of 110 students, 22 of whom list Nebraska as their home state. Thirty five of the 110 are from the four states of Nebraska, Iowa, North Dakota and South Dakota, with the three states providing the largest number of students being Nebraska (22), Wyoming (21) and Iowa (10). Twenty one of the new students are women and 44 are students that took their pre-professional work at Creighton. As I told you a few months ago, the number of applicants declined significantly from the preceding year, and in fact continued a declining trend of the last three years which is also true of the nation as a whole.

At your Annual Meeting, I pointed out that the School of Medicine had apparently weathered the financial "storm" created with the abrupt reduction in the allocation of federal dollars to support our undergraduate medical education programs. To illustrate the extent to which we have adjusted, I am pleased to report that the Creighton University School of Medicine ended fiscal 1976-1977 "in the black," that is, our expenditures were slightly under the anticipated program support revenues. We are now extremely confident that, barring some new unforeseen circumstances, we are moving forward on a financially sound base, albeit far short of a luxurious one.

I am pleased to report, as I am certain you are pleased to hear, that our Continuing Education Program for Physicians and other Health Professionals continues to grow and to meet with acceptance of the practice community. As I have reported a number of times, we are partially indebted to the Nebraska Medical As-

sociation and AMA-ERF for our ability to share our resources with the practice community in this way.

I would also like to acknowledge the continuing participation and support of many members of your organization through our Alumni Advisory Board. I am particularly pleased to acknowledge that this year we proceed forward under the same leadership, as Dr. Lempka, your current President, is also President of the Creighton University Medical Alumni Advisory Board.

While there are no major new developments to report from the activities of the Creighton-Nebraska Universities Health Foundation, I feel compelled to again call to your attention the existence and activities of this organization that assures continued cooperation between ourselves and our friends and colleagues at the University of Nebraska Medical Center. The spirit of innovation and cooperation that has characterized the Foundation from its inception is being continued under the present leadership of that institution.

Finally, a few months ago I called to your attention the new Health Manpower Legislation enacted by the preceding Congress and urged you to develop and sustain your interest as an individual and as an organization in that legislation and the appropriations to support it. The summer has been a quiet one with respect to Manpower Legislation and there are no new developments that I feel necessary to call to your attention. However, the signs are very clear from Washington that federal policy now is based upon the assumption of a surplus of physicians in the early 1980's, and I am certain we can all predict the significance of such a policy on future legislation and appropriations.

It has been my pleasure to address these remarks to you again and to invite your continued interest in our activities.

Respectfully submitted,
JOSEPH M. HOLTHAUS, M.D.
Dean

REPORT OF THE UNIVERSITY OF NEBRASKA MEDICAL CENTER

This is my first report to you as Chancellor of the University of Nebraska Medical Center, and I sincerely regret that a prior commitment of long duration prevents me from addressing you personally. I hope I will have the opportunity as time goes along to meet with you as a group and individually.

My strongest pledge to you is to continue to improve communications between the Nebraska Medical Association and the Medical Center on both a formal and an informal basis. A quality program at the Medical Center is dependent upon such communication, and I would like to think that such quality is a benefit to us all.

Dean Rigby will relate specific developments within the College of Medicine, including the impact of the new clinic building on our teaching and service programs, and the challenges garnered with a less than satisfactory budget for the current year. I would like to speak as the so-called "new man on the street," and outline some of the campus-wide concerns as I see them.

Most of my preconceived ideas about the Medical Center have been confirmed during my several months on the job. The institution is basically sound. Its missions of education, service and research are being

conscientiously pursued. We have the support and encouragement of the professions we represent. Citizens as a whole are closer to the Medical Center and more aware of its programs than is the case in many other states. But like any active organization, we have our problems, too.

Those problems seemed to figure in the background of some of our lack of success in the Legislature this past year. Therefore my first priority was to get the best information I could obtain from the most qualified people available on how we can do a better job. To do this I have appointed special committees to review our policies on professional fees earned by our clinical faculty, on our current and projected efforts in rural health, and on the adequacy of our effort in research.

In appointing a special task force on rural health, I did so with only one bias — that the problems encountered in the state could not be solved solely by the Medical Center or by the Nebraska Medical Association or by any other agency or group of agencies acting alone. Such issues as health manpower distribution and health facilities must ultimately be addressed by the communities themselves, working with established organizations such as yours and ours. Perhaps the task force will conclude that current efforts are sufficient, but I would speculate that new initiatives will be recommended.

We have assured the Governor's Commission on Rural Health our full cooperation and in fact have already established liaison with that group.

Overall the Medical Center's enrollments in all health education programs total about two thousand — in the Colleges of Medicine, Nursing, and Pharmacy and the School of Allied Health. Generally, with the exception of Allied Health, those enrollments have now reached what appears to be a plateau, consonant with the needs of the state.

A special concern of mine will be to improve our research effort, which I believe bears directly on the quality of our education and service programs. In no way should we aspire to be a Harvard or University of Chicago with a major emphasis on research, but we can realistically match efforts of state Medical schools of approximately the same size and character.

Finally, I would point out that in Arizona and Michigan I was active in county and state medical societies, and I would hope that as time permits I can be an active and contributing member of the Nebraska Medical Association. I look forward to the opportunity to get to know each one of you and to work closely with your Association in the years ahead.

Respectfully submitted,
NEAL VANSELOW, M.D.
Chancellor

REPORT OF THE UNIVERSITY OF NEBRASKA COLLEGE OF MEDICINE

During 1977, there continue to be changes, additions and important events occurring in the University of Nebraska College of Medicine. The Faculty has evaluated and ratified the following revised statement of the Purpose and Goals for the College:

Purpose

To provide an organized high quality program of health education, service and research addressed to opportunities for and the needs of the citizens of the State of Nebraska.

Goals

1. To provide high quality education in humanistic and scientific medicine for those students who aspire to the health professions in Nebraska, specifically medical students, house officers, allied health professions students, graduate college students and continuing education students.
2. To encourage the recruitment and retention of qualified health professionals in the State of Nebraska.
3. To develop and maintain a sharing of educational resources with communities and health professionals in the State of Nebraska.
4. To provide high quality primary care programs for the citizens of the State of Nebraska consistent with educational programmatic needs and in concert with other health institutions, agencies, and professionals.
5. To provide high quality tertiary care programs relevant to education and research and responsive to the needs of the citizens of the State of Nebraska, consistent with responsible regional and state health planning.
6. To develop and foster both clinical and basic health science research in the pursuit of scientific excellence and human needs.
7. To seek and develop resources that will enable the College of Medicine to respond to current and future educational, service and research needs and opportunities.
8. To provide appropriate financial, professional and intellectual rewards to remain competitive and attract and retain highly qualified faculty and staff.
9. To participate in the formulation of health policy at local, state, regional and national levels in support of high quality health care for the citizens of the State of Nebraska.

In early 1977 the faculty of the College of Medicine voted to initiate a new 4-year curriculum, to begin implementation during the 1978-79 academic year.

The changes are expected to include (1) an expansion of the number of weeks of instruction from the current 135 to a total of 159, adding 12 weeks each to the preclinical and clinical segments of the curriculum; (2) semester scheduling; (3) expanded emphasis in the primary care fields and ambulatory practice.

Students will benefit by having greater flexibility in scheduling vacation time, more opportunity to explore career choices before choosing a residency, and more opportunity to pursue worthwhile experiences outside the regular curriculum, such as research and MECO projects. Students will have an opportunity to increase the length of time spent in the Family Practice Preceptorship. Curricular innovations are being developed which will increase the student's understanding of the field of medicine and contemporary problems which the profession faces, the physician's professional obligations, the roles of other health professionals, and will also provide an early introduction to the need for, and methodologies of, continuing medical education.

The College of Medicine prepared a spending plan for 1977-78 that reflects a \$1,333,286 reduction in the budget. This was primarily caused by a loss of federal funds that were not restored in the state-supported budget. In order to accomplish this budget reduction, it was necessary to make reductions in educational programs, college and departmental instructional operating budgets and personnel. Tight spending policies

in all of these areas had to be imposed for the remainder of the fiscal year in order to attain and maintain a balanced budget for the fiscal year.

While every effort has been made to maintain quality programs, it cannot help but be noted that a reduction of this magnitude would have to imply that the quality of some programs would necessarily be decreased. It is the hope of the College of Medicine that partial restoration of these funds can be obtained next year so that the level of funding and quality of the past can be maintained and hopefully increased in the future.

The University of Nebraska Clinic Building, formerly called the Ambulatorium, is scheduled for completion in the fall of 1977. With this expansion of College of Medicine facilities, programs for medical students and house officers will be improved. About 75% to 85% of the typical physician's time in practice is spent in taking care of patients in the office and only 15% to 25% of his time is spent in taking care of patients in the hospital. This facility will provide a setting similar to a physician's office and will better reflect the pattern experienced by physicians in practice. With this change in the educational program, students will be better prepared to understand the needs of their patients when they enter practice. It is anticipated that this educational program will encourage more medical students to enter practices of primary medical care such as Family Practice, Internal Medicine, Pediatrics, and Obstetrics and Gynecology.

We look forward to improved communication with the Nebraska Medical Association in all areas of mutual concern.

Respectfully submitted,
PERRY G. RIGBY, M.D.
Dean

REPORT OF THE STATE DEPARTMENT OF HEALTH

It is again my pleasure to write to the House of Delegates about activities of mutual interest to Nebraska physicians and the Department of Health. First would be to report that data accumulated by the Department indicates Nebraska physicians are doing an effective job in immunizing children against the traditional childhood diseases. School age children average higher than 90% protection for most of these diseases. Our goal this year is to work to reduce the number of unprotected school aged and preschool aged children.

The perinatal monitoring programs in a number of outstate hospitals (22) and the development of specialized facilities for newborn infants with serious problems continue to favorably impact our infant care potentiality.

The state of Emergency Medical Services by region continues to progress. Both the Panhandle and the Midlands Regions have been awarded grants to develop advanced life support systems. Southeast Nebraska and Northern Nebraska are embarking on regional basic life support systems development. These programs are essentially medical in their approach and depend upon the input and judgments of the physicians of an area working in conjunction with hospitals, rescue units, and local government to become effective. LB 138 was passed by the last session of the Legislature and forms the basis for the ongoing advanced paramedic technician training and certification in Nebraska.

Finally, I would state that the Department of Health

looks forward to continue working with the Nebraska Medical Association on all matters of mutual interest.

Respectfully submitted,
HENRY D. SMITH, M.D., M.P.H.
Director

REPORT OF THE EXECUTIVE SECRETARY

What does the Nebraska Medical Association do for me? I am sure this question has been raised on occasion within a group or one which you may have asked yourself. It is a fair question and deserves a response. Therefore, part of this report will be directed to this subject.

Communication with the member is a vital area. One form of this is the Nebraska Medical Journal. Its purpose is to keep you informed on scientific matters, organizational and socio-economic issues. Each month the NMA President comments in his page on a current subject of interest to the profession. Also in the Journal you will find a complete report of the Annual and Fall Sessions of the House of Delegates. The NMA "Newsletter" arrives on your desk periodically as the need indicates. It is designed for quick reading on topics of immediate interest. Another in-house publication is "Professional Liability UPDATE" that is mailed on appropriate occasion with information on implementation of the Hospital Medical Professional Liability Act passed in 1976.

Legislative matters, both national and state, necessitate regular review and appropriate activity. The Association has two committees for this purpose. At the national level a committee maintains an audit of health legislation proposed by Congress and has communicated NMA position with regard to specific legislation. At the state level another committee reviews health legislation and arranges for representatives to appear at public hearings on these bills. Also if necessary, the important role of physician contact with his legislator is utilized. Such activity provides for effective input in these legislative matters.

Reorganization: Over the past year the Association has been developing a plan of reorganization for the NMA with a recommended implementation date of May, 1978. The purpose of this program is to make the Association more responsive to both the short and long term needs of the organization. The final modification of this proposal will be submitted to the House of Delegates for approval.

Continuing medical education is a fact of life for physicians. Already it is a requirement for membership in many specialty organizations along with enabling legislation which could make such requirement a condition of relicensure. The Medical Education Committee has applied for and been certified by the American Medical Association to survey and accredit organization's and institution's scientific programs. Additionally the Scientific Sessions Committee applied to the Medical Education Committee and received approval to co-sponsor programs in the state for Category I credit. This activity will provide physicians and hospitals across the state a more efficient method of applying for CME credit for local programs.

Committees: The bread and butter work of the Association is done by the committees, currently twenty-nine in number plus several ad-hoc committees handling special projects. These committees cover a wide range of activity such as contact with allied professions and all levels of governmental agencies, scientific programs, athletic seminars, CME courses,

medical discipline, peer review, maternal and child health, public relations, health education, insurance and prepayment medical care to name a few.

Miscellaneous: Add to this the daily activity of officers and staff which involves a variety of meetings, conference calls, response to requests from members, the public, organizations and governmental agencies and you get a fairly good idea of the tempo of activity. This activity, while difficult to identify, is an important segment of the daily workload of this organization.

While the physician is an individual, the Association takes your attitudes and directions and presents them in a unified manner on a given subject. The foregoing is only a portion of the multiplicity of activity that goes into developing the programs of medicine in a positive and effective manner. I hope this brief report has helped identify some of the many activities of your Association.

NORTH CENTRAL MEDICAL CONFERENCE:

The 1977 meeting of the North Central Medical Conference will be held in Bloomington, Minnesota, November 5 and 6. The President of the Conference Russell L. Gorthey, M.D., NMA Secretary-Treasurer, will preside. The Conference deals with socio-economic matters and always presents an outstanding program. The details of the program will be announced at a later date. We hope you will attend this excellent Conference.

ANNUAL AND FALL MEETING DATES:

The 1978 Annual Session will be held in Lincoln during the week of April 30, May 1, 2, 3, at the Lincoln Hilton Hotel.

The Fall Session will be held during the week of September 21-23, 1978, at the Lincoln Hilton Hotel and coincides with a Nebraska home football game. Please mark these dates on your calendar.

Following this report is a summary report on membership and distribution of physicians by type of practice for the year 1977.

Respectfully submitted,
KENNETH E. NEFF
Executive Secretary

1977 MEMBERSHIP

Active:			
AMA Members	959		
Non-AMA Members	404	1363	
Life Members		164	
TOTAL MEMBERS		1527	
Less Deceased Members		9	
		1518	

Student:			
Nebraska		62	
Creighton		18	
TOTAL		80	

House Officer:			
Nebraska		20	
Creighton		3	
Miscellaneous		2	
TOTAL		25	

	Omaha	Lincoln	Out-State	Totals
Private Practice	538	226	583	1347
Full-Time V.A.	16	12	9	37
Full-Time Emergency Room	21	8		29
Full-Time Dept. Public Institutions		7	12	19
Full-Time Administration	3	5	1	9
Full-Time Medical School Faculty	240			240
Retired, Disabled, Not in Practice	34	18	62	114
TOTAL PHYSICIANS	852	276	667	1795

Total Members	1518
Total Non-Members	277

REPORT OF AD-HOC COMMITTEE ON FEDERAL LEGISLATION

Jerald R. Schenken, M.D., Omaha, Chairman; C. J. Cornelius, Jr., M.D., Sidney; Louis J. Gogela, M.D., Lincoln; Harold R. Horn, M.D., Lincoln; Donald F. Prince, M.D., Minden; Gerald J. Spethman, M.D., Lincoln.

The Ad-Hoc Committee on Federal Legislation has reviewed material from a variety of sources relating to multiple congressional issues. These directly or indirectly have implications for the practice of medicine, especially here in Nebraska. Some of the issues which indirectly affect medical practice include HR 8444, a proposal to federalize utility rate decision making by setting national criteria for the respective state public utility commissions; HR 3816, the Federal Trade Commission amendments which would expand the activities of the Federal Trade Commission to a degree which would be unduly burdensome on business; HR 10, which would amend the Hatch Act in a way which would encourage federal employees to become politically active; HR 3744 and S 1871, which would raise the minimum wage and automatically index future minimum wage increases to the average manufacturing wage; HR 8410, which would revise the National Labor Relations Act in a way which would appear to increase union power while placing additional burdens on employers; S 256, which would deregulate the price of new natural gas immediately and offshore natural gas over a period of five years; HR 6075, which would provide for so-called pregnancy disability by classifying pregnancy leave as comparable to any other leave for illness or injury, establish pregnancy leave pay equal to that for other illness or injury, and provide for maternity/abortion medical coverage if other medical-surgical conditions are already covered. In addition, several of the proposals to rehabilitate the ailing Social Security system, have been reviewed.

The Ad-Hoc Committee was directed to review the Nebraska Medical Association's position on national health insurance and make a recommendation to the Policy Committee on whether or not the Nebraska Medical Association should alter its present position. The Nebraska Medical Association's position on national health insurance has been one of opposition, both to introduction and/or implementation. The Nebraska Medical Association's Ad-Hoc Committee on Federal Legislation recommends (to the Policy Committee) that the Nebraska Medical Association's present stand on national health insurance be reaffirmed.

HR 2504 and S 708, proposals to establish so-called rural health clinics, were reviewed by the committee. Several problems are foreseen. These proposals provide for direct payment from the government to rural health clinics, institutions which are operated by nonphy-

sicians, probably physician's assistants. The committee expressed its deep concern that these bills would establish a precedent in which physician's assistants, without appropriate medical supervision, would be compensated directly by the government for providing "medical care" to patients. These proposals vary considerably in the amount of physician supervision required. The committee has communicated to the Congressional representatives from the state, their concern about this facet of these proposals.

The committee has reviewed in principle, the various cost-control legislative measures including HR 6575 (proposed by Mr. Rostenkowski and Mr. Rogers) and HR 1470 (proposed by Senator Talmadge). These measures present complicated, often confusing, proposals for containing the cost of providing medical care to the beneficiaries of the various government's health insurance programs. They must remain under continuing review by the Ad-Hoc Committee as well as the members of the Nebraska Medical Association.

Respectfully submitted,
JERALD R. SCHENKEN, M.D.
Chairman

REPORT OF THE AD-HOC COMMITTEE ON PSRO

John H. Bancroft, M.D., Kearney, Chairman; Allan C. Landers, M.D., Scottsbluff; Harry McFadden, M.D., Nebraska City; Harlan L. Papenfuss, M.D., Lincoln; Donald J. Pavelka, M.D., Omaha; C. Lee Retelsdorf, M.D., Omaha.

The Social Security Amendments of 1972 required the establishment by 1/1/78, of Professional Standards Review Organizations (PSRO) to monitor health care services rendered by Medicare, Medicaid and maternal and child health beneficiaries reimbursable under the Social Security Act. The Ad-Hoc Committee on PSRO was appointed upon action of the Annual Session of the NMA House of Delegates in 1973.

During the intervening years, the Ad-Hoc Committee has either met with or visited with members of the New Mexico, Utah, Illinois, Twin Cities (Minneapolis-St. Paul, Minnesota) and the San Joaquin review programs, plus Nebraska Blue Cross-Blue Shield, the Nebraska State Department of Public Welfare, the Nebraska Hospital Association, the Dykwood Corporation of Albuquerque, New Mexico, American Health Systems, Inc., the Commission on Professional and Hospital Activities (CPHA) and other pertinent groups.

Funds for the Committee's work and for establishment of the Nebraska Foundation for Medical Care, Inc. were obtained from the Nebraska Regional Medical Program, Nebraska Blue Cross-Blue Shield and from voluntary physician contributions.

Annual Session, 1974 — The House of Delegates adopted a resolution urging the AMA and competent societies work vigorously for repeal of PSRO provisions. The House adopted a second Resolution reaffirming the NMA's commitment to a concept of effective and meaningful Peer Review and, also, recommended that the Ad-Hoc Committee continue to explore contingency plans regarding PSRO in the event that repeal was not accomplished.

Fall Session, 1974 — The Ad-Hoc Committee recommended the establishment of the Nebraska Foundation for Medical Care. (a foundation committed to improve the quality of the practice of medicine and increasing the availability and access to the main stream of medicine), and asked for authority for the Committee to seek planning funds. The House of Delegates accepted these Resolutions.

Fall Session, 1975 — The Ad-Hoc Committee recommended authorization to set up a review program with financing and computer services under the auspices of Nebraska Blue Cross-Blue Shield. The House of Delegates rejected this request.

Spring Meeting, 1976 — The Committee recommended applying for a Federal planning Grant from HEW to establish a PSRO unit along CPHA lines. The House of Delegates recommended that the Committee merely monitor PSRO changes.

Fall Meeting, 1976 — The House of Delegates accepted the Committee's recommendation to continue monitoring PSRO development.

Spring Meeting, 1977 — The Committee asked for and received permission from the House of Delegates to try to run a "reverse PSRO" e.g. a control state to monitor utilization without a PSRO control.

This July the Ad-Hoc Committee met independently with Mr. Jim Nordstrom, from the HEW Regional Office in Kansas City, representatives from the University of Nebraska College of Medicine, Creighton University School of Medicine, Henry D. Smith, M.D., Director of Health for the State of Nebraska, and representatives of the Nebraska Hospital Association. All of these parties hoped that we would set up some type of PSRO but had no interest in setting up a PSRO themselves.

Currently, other areas facing establishment of non-physician, or alternate PSROs, are twelve areas in California, Florida, Louisiana, and Illinois, plus the entire State of Georgia.

At an April, 1977, meeting of the Oversight Sub-Committee of the House Ways and Means Committee, hearing chairman, Representative Fortney H. Stark (D-California), let the cat out of the bag verbally when he stated "it is obvious that cost control was intended to be the main emphasis of PSRO review, yet, when selling the program to the medical profession HEW distorted the intent." Although all of us had come to this decision at varying times in the past it finally was in writing by somebody other than a questioning physician.

While it is undoubtedly true that the PSRO program has helped motivate and advance Audit and Utilization Committees at individual hospitals, the Committee feels that it is only at the individual hospital level that adequate meaningful, individualized audit and utilization programs can be performed. Regardless of the organization of the PSRO this is where the "medical review" will and should be made.

Since individual case medical decisions are best made by that patient's attending physician and the PSRO interest is that of rationing care, we feel that "rationing decisions" being of financial and not medical judgment should be delivered by non-physician personnel.

The Committee, therefore, feels that no attempt should be made by the physicians of the State of Nebraska to organize a PSRO and to await the establishment of an alternate PSRO by HEW.

Respectfully submitted,
JOHN H. BANCROFT, M.D.
Chairman

REPORT OF THE ADVISORY TO THE AUXILIARY COMMITTEE

Guy M. Matson, M.D., Lincoln, Chairman; Warren G. Bosley, M.D., Grand Island; Gordon D. Francis, M.D., Grand Island; Y. Scott Moore, M.D., Lincoln; Lyle H. Nelson, M.D., Lincoln; Harry D. Shaffer, M.D., Lincoln.

On August 31, 1977, the Advisory Committee was called to meet with representatives of the Nebraska Medical Association Auxiliary to discuss the program and aims of the Auxiliary. The primary project of the Auxiliary for the year is to complete funding and construction of the Health Gallery. Much effort, planning and time have been directed toward this project.

The Advisory Committee, on behalf of the NMA Auxiliary, requests the House of Delegates move as follows:

1. Reaffirm the commitment of the medical community for \$150,000.
2. Approve inclusion with the 1978 dues statement of a separate enclosure pledge card for the Health Gallery so that all physicians and their families may have that opportunity to submit their pledges to the Health Gallery.

In addition to these items, the Auxiliary plans to place in the Nebraska Medical Journal a tear-out pledge card to present still another opportunity to pledge. The model of the Health Gallery will be displayed at the House of Delegates meeting.

Respectfully submitted,
GUY M. MATSON, M.D.
Chairman

REPORT OF THE HEALTH EDUCATION IN SCHOOL AND COLLEGES COMMITTEE

S. I. Fuenning, M.D., Lincoln, Chairman; Frank O. Hayworth, M.D., Omaha; Clyde L. Kleager, M.D., Hastings; Plinio Prioreschi, M.D., Omaha; Ron D. Scott, M.D., Kearney; Eileen C. Vautravers, M.D., Lincoln.

This is a progress report of the activities of the Health Education in Schools and Colleges since the committee's last report, which was submitted in May of 1977.

In the last report, the Berkeley Project, or as it is now known, the School Health Curriculum Project, was identified as an effective health education program for elementary and secondary schools. The pilot project which was initiated by Doctor Kerry Redican in the Wahoo School System last spring is continuing this fall. This past August a workshop was held with representatives from the following school districts: Wahoo, Plattsmouth, Papillion and Elkhorn. These school districts will initiate the Berkeley Project in their respective districts this fall. This project is a hand-on, multi-media approach to comprehensive health education. Currently, the program covers Grades Three through Seven. Each grade-level unit centers around a "core" area. The "core" areas include: the eyes (Third Grade); digestive system (Fourth Grade); respiratory system (Fifth Grade); circulatory system (Sixth Grade) and the brain and central nervous system (Seventh Grade). An ongoing evaluation has been initiated. The results will be reported when completed. So far, this project has been the most effective school health education curriculum unit which has come to our attention.

This last summer a survey was conducted to determine the extent to which Nebraska physicians were involved in health education activities in their

communities. The questionnaire was designed to establish an inventory of identifiable health education program activities. There was a 35% return on the questionnaire. The survey indicated that physicians are involved in school health education, community health education, patient health education and health education in the workplace. Over 100 physician members spend 1 to 2 hours per week in the various dimensions of a comprehensive health education program. There are at least 11 physicians that serve on a Board of Education for public schools.

The Nebraska Inter-Agency Health Council is planning a Nebraska Conference on Health Education which is scheduled for October 18-20, in Lincoln, Nebraska. This conference will consider the health implications of PL 93-641 (National Health Planning and Resources Development Act of 1974). This conference is co-sponsored by the three Health Systems Agencies and the Health Planning Division of the State Department of Health. This conference will review the preliminary health education standards that are being developed by the Health Systems Agencies, and the recommendations of the four task forces which have been established by the Nebraska Inter-Agency Health Council, namely, school health education, community health education, patient health education and health education in the workplace.

This committee has carefully reviewed the various proposed health education standards developed by the Bureau of Health Education of HEW and those recommended by other states. After reviewing the present crucial issues, this committee recommends the following, as essential to the development of a sound and current health education program for the State of Nebraska:

1. The promotion of citizenship responsibility for health through sound and current health education programs which would prepare the citizen to make an informed decision regarding his or her healthful practices.
2. The development of a research center in health education in Nebraska to accomplish the following objectives:
 - a. To evaluate the effectiveness of ongoing health education programs;
 - b. To conduct studies that would result in the development of more effective health education programs for the consumer of all ages;
 - c. To develop, in cooperation with the health resources in Nebraska, continuing educational programs for consumers; and
 - d. To maintain a reference library of authoritative information on current and sound resources available for health education programs.

In order to accomplish these objectives, the research center would need to be located in an area where a maximum number of health resources exist. The basic operational core would be financed through state tax funds. Supporting funds would be secured through foundations and grants from other agencies.

For years, it has been recognized there needs to be an ongoing evaluation program of health education activities. This has never been accomplished. It is, therefore, recommended that such a facility be established at the University of Nebraska Medical Center which can objectively evaluate health education programs. This would serve as a very significant stimulus in upgrading ineffective health education

programs, especially those that are located in schools.

3. The development in each community, of appropriate size, a local center for health education to coordinate planning and implementation of comprehensive health education on the local level. This local center would have representation from the organized agencies representing professional health agencies, voluntary health agencies, official health agencies and other community-related health education agencies. This local center would coordinate programs in school health education, community health education, health education in the workplace and patient health education, as well as other local health-resources educational programs.

In the past, the need for coordination was recognized. It had also been recommended that a school-community health council be established locally to coordinate the comprehensive health education program in any one community. This has not been successful, and therefore, a new organizational entity is being recommended. There are several local centers in existence at the present time. To date, they have established a mechanism of communication which has helped to coordinate and promote cooperative activities within a community.

4. Continuing education of all health education professionals.

This has been recognized as crucial for all health disciplines. This is particularly true for the health educator who needs to remain current on the rapid developments in the health sciences. It has been determined that knowledge doubles itself every five years.

5. Physicians in the State of Nebraska would assume continued leadership in all areas of health education with emphasis on accuracy of subject matter. They should also assist in the evaluation of the effectiveness of health education programs locally. Wherever possible, the local county medical society should be involved. The survey that was conducted did indicate that Nebraska physicians are interested and do assist in the development of effective health education programs.

Physicians are also encouraged to promote the Berkeley Project within their own school district. Doctor Kerry Redican, national trainer and a member of the faculty of the Department of Health Education, will be glad to discuss the School Health Curriculum Project with any of the medical groups in Nebraska upon request.

The Chairman expresses great appreciation to all members of the Nebraska Medical Association who have provided continued support of health education in their local area. In addition, I want to express my appreciation to members of this committee for their work in the promotion of health and fitness in the State of Nebraska.

Respectfully submitted,
S. I. FUENNING, M.D.
Chairman

REPORT OF THE HEALTH PLANNING COMMITTEE

Carl J. Cornelius, Jr., M.D., Sidney, Chairman; Roger W. Dilley, M.D., Fremont; Robert J. Fitzgibbons, M.D., Omaha; S. I. Fuenning, M.D., Lincoln; F. H. Hathaway, M.D., Lincoln; James E. Ramsay, M.D., Atkinson; Stanley M. Truhlsen, M.D., Omaha.

No formal meetings of the Health Planning Committee

have been held since the NMA Annual Meeting in May, 1977. However, this fact should not be equated with a lack of activity on the part of committee members. Sam Fuenning, M.D. has represented the committee and the NMA as a member of the Interim Coordinating Committee for Plan Development pending appointment by the Governor of the members of the State Health Coordinating Council as prescribed in PL 93-641, the Health Planning and Resources Development Act of 1974. Fred Hathaway, M.D. has served as a member of the Health Manpower Committee which recently published its first report, "The 1976 Nebraska Health Manpower Plan," which will again be reviewed by all members of the Health Planning Committee in the near future, and a copy of his resume of this plan is appended to this report. Your Committee Chairman has been appointed to and will have attended the initial organizational meeting of the State Health Coordinating Council just prior to this session of the House of Delegates and will report on this meeting to the members of the Health Planning Committee regarding the prospects for meaningful input by physicians into the State Health Planning process under PL 93-641.

Consideration is being given to validation studies in such areas as physician productivity as possible future activities of this committee.

It is anticipated that some specific recommendations regarding the manpower study, NMA's future role in Health Planning and its relationship to PL 93-641, and other committee projects will be forthcoming by the Annual Session of the NMA in 1978.

Respectfully submitted,
CARL J. CORNELIUS, JR., M.D.
Chairman

RESUME: THE 1976 NEBRASKA HEALTH MANPOWER PLAN

The 1976 Nebraska Health Manpower Plan was finalized in early 1977 and available in printed form in May, 1977. In addition there is available an Executive Summary of the Plan.

The Comprehensive Health Division of the State Health Department was given the responsibility of developing a Health Manpower Plan for Nebraska. This was accomplished with the aid of the State Health Manpower Planning Committee which was composed of representatives from the major professional associations, educational institutions, the hospital and nursing home associations, insurance organizations, various state government agencies, the State Legislature, and consumer groups.

The purpose of the plan was to —

1. Identify, if possible, the health manpower needs by area and in the state as a whole.
2. Develop an acceptable system for identifying the areas of greatest relative need.
3. Formulate short and long range strategy for relieving manpower shortages.

The scope of the study included the entire State of Nebraska.

Occupations considered in the Plan included (1) Physicians, (2) Dentistry, (3) Pharmacy, (4) Nursing (RN's & LPN's), (5) Podiatry, (6) Optometry, and (7) Veterinary Medicine. Other selected occupations, because of limited availability of data, were estimated only on the basis of health planning areas and the state.

These occupations included various Technicians, Therapists, and Assistants.

The philosophy of the Plan assumed that planning is best accomplished at that level nearest the problem and that local planning efforts should be coordinated at the state level. Three approaches were used to estimate the need for health manpower in the state:

1. A service utilization demand model was used to estimate manpower requirements for all physicians except anesthesiology, pathology, and radiology. Other professionals were handled in the same manner.
2. A service target approach was used to estimate manpower requirements for nurses and most of the allied health occupations considered in the plan. For example, professional experts recommended that every hospital over 100 beds should have one head nurse for every 14 patients.
3. A fixed ratio method was used to compute manpower requirements for Chiropractors and the physician specialties of anesthesiology, pathology, and radiology (e.g. one radiologist per 16,000 population).

Having attempted to arrive at some estimate of the need for health professionals in various health planning areas, these figures were then sent to the areas for validation. The comments of the Task Forces in the various areas were then, in most cases, included as qualifying statements in the Plan. The draft of the Plan was also reviewed by other organizations and agencies including the Nebraska Medical Association, the State Board of Health, the University of Nebraska and Creighton University Medical Centers, and others.

One of the major objectives of the Plan was to identify the areas of the state which have the greatest relative needs for various health professionals. These needs vary from time to time depending on new professionals entering a community and others becoming inactive through retirement, illness, or death. Therefore, the Manpower Plan will be subject to periodic amendment. The 1976 Nebraska Health Manpower Plan will be available to the State Health Coordinating Council, Health Planning Groups, Governmental Agencies, and other interested groups.

The Manpower Plan, in addition, considered short range strategies and long range strategies that might be effective in obtaining health personnel in areas of need. Briefly, the Plan made the following suggestions:

1. Establish a Health Resource Development Committee that could initiate and implement manpower policies.
2. Conduct a community assessment study including, (a) General environmental characteristics; (b) Medical environment; and (c) The financial ability of a community to support additional health professionals.
3. After validating the results of the community assessment study, the Health Resource Development Committee would be responsible for disseminating and implementing the findings of the study.
4. If it appears to be economically feasible a community which does not have a physician should consider recruiting at least two physicians into a group practice organization.

In the event that a community cannot support a physician, the Plan suggests arranging for medical care by a physician or physicians in nearby areas or by physician extenders (i.e., physician's assistants and nurse practitioners).

The Plan also views favorably increased regionalization of health care and the Health Maintenance Organization concept.

The Nebraska Medical Association had input into the Plan but obviously would not be in agreement with all aspects of the Plan. There is included with the Health Manpower Plan and also in the Executive Summary of the Plan "AN EXCEPTION REPORT: A SUMMARY OF MAJOR OBJECTIONS TO THE PLAN." Many of the criticisms in the report were made by the Nebraska Medical Association. These criticisms were dealt with at some length in the Report of the Health Planning Committee of the NMA in the Delegates Handbook at the Annual Session in May, 1977.

This brief resume of the 1976 Nebraska Health Manpower Plan hits some of the "high points" at best. The Executive Summary, which is available in the NMA office, covers the main aspects of the plan in a fairly adequate manner. The formal Plan, of course, goes into much greater depth of all phases of the Plan.

REPORT OF THE MEDICAL EDUCATION COMMITTEE

John W. Smith, M.D., Omaha, Chairman; Wendell L. Fairbanks, M.D., Alliance; Andrew Hahn, M.D., Omaha; Joseph M. Holthaus, M.D., Omaha; Leonard R. Lee, M.D., Lincoln; Perry G. Rigby, M.D., Omaha; Fred J. Rutt, M.D., Hastings; Robert J. Stein, M.D., Lincoln; Larry F. Wilson, M.D., Syracuse; Paul R. Young, M.D., Omaha.

The Medical Education Committee is pleased to report the completion of two more surveys for accreditation of continuing medical education since the last report to the House of Delegates.

On July 1, 1977, the national organization responsible for accrediting institutions and organizations for continuing medical education became the Liaison Committee on Continuing Medical Education (LCCME). The LCCME is composed of representation from the American Board of Medical Specialties (ABMS), American Hospital Association (AHA), American Medical Association (AMA), Association for Hospital Medical Education (AHME), Association of American Medical Colleges (AAMC), Council of Medical Specialties (CMS), Federation of State Medical Boards (FSMB), the Federal Government and the Public.

For the time being, the LCCME plans to continue accreditation in the same way the AMA has done it, by delegating local responsibility to state medical associations. Therefore our Association will continue to conduct surveys as requested by institutions and organizations. The materials developed by the survey will not be sent to the LCCME through the official channels for final approval. The LCCME may make changes in this program in time but they are currently too new at the job.

Attached to this report are bylaws and draft resolutions of an organization called the Council of State CME Committee Chairmen. The Medical Education Committee recommends that the House of Delegates (1) support the concept of the organization of the Council of Chairmen of State Committees of Continuing Medical Education with the financial support as listed in Article VII, and (2) that the delegates to the AMA be instructed to support either of the two resolutions (either to include three representatives from this new organization on the LCCME or if that fails, to have

three representatives be permanent guests on each of the panels).

Respectfully submitted,
JOHN W. SMITH, M.D.
Chairman

TO: Chairmen, CME each state, Guam, Panama Canal Zone, D.C., Puerto Rico

FROM: Melvin D. Small, M.D., Chairman Pro-Tem, Council of State Committee Chairmen

SUBJECT: Council of State Committees of CME

The first meeting of the Council of State Committees on Continuing Education was held at the Holiday Inn on 21 June 1977 and was opened by an address from Dr. Richard Palmer, President of the AMA. There is considerable concern, and from information received, reason for it, as to the role of the State Societies in Continuing Medical Education. All members present felt that there were many roles that a Society such as this aborning could fulfill and these roles are listed in the preliminary By-Laws which were developed by and Ad-Hoc Committee at the initial meeting.

The attached By-Laws are sent for your perusal, modification, and comment and should be returned to us with your comments at your earliest convenience. We hope you will find that this Council, as outlined in the proposed By-Laws, can serve your Society as well as all who were present.

Because of our concern with the distance problems and the cost of travel, particularly for such Societies as Panama and Guam, we have included a provision for mail ballot and, of course, this provision can be strengthened if it appears to be in the best interest of the majority of members.

I am also enclosing a copy of a resolution which is to be reviewed at the next Clinical Meeting of the AMA in Chicago in December with a back-up resolution which was recommended for inclusion so that a voice, if not a vote, may be available to us in the Councils, both Review and LCCME. We would hope your State Delegates can support our primary proposal and be willing to accept the fall-back position as delineated in the second proposal.

We would greatly appreciate your prompt replies including comments on the proposals, interest in joining us in this endeavor, and your modifications of the By-Laws. Our next meeting is scheduled for the AMA Clinical Convention in Chicago at which time we hope final details can be worked out.

Thank you.

Forward

These bylaws are designed to serve an organization which will provide a forum for the communication of ideas, exchange of problems, concepts and hopefully solutions to the many mutual problems which each state committee of continuing education faces. To this end and to maintain state identity in the process of accreditation and formulation of modes of continuing education consistent with the existing pluralistic system of licensure by state agencies, we will strive for representation on national bodies where the views of the grass roots physician should or must be heard so as to have input into the process of CME.

Article I: Name

The name of this organization shall be the Council of State Committees of Continuing Medical Education.

Article II: Purposes and Functions

The purposes of the Council of State Committees of Continuing Medical Education (henceforth referred to as the Council) shall be to promote communication between the states, to aid in the formulation of policies and modes for continuing education and to relate continuing medical education at the state level to the needs of the practicing physician to ensure the optimal medical care, to maintain the function of the state medical societies as survey and accrediting bodies for organizations and institutions offering continuing education within the state and to participate with such national organizations, councils, boards or committees as may be deemed appropriate in the formulation of policies concerning continuing medical education.

The Council shall:

- a. Review and assess developments in continuing medical education and keep all member societies apprised of such activities.
- b. Encourage cooperation studies between its member societies for improving the organization and processes of continuing medical education.
- c. Develop and evaluate, with the cooperation of its members, methods for assessing continuing medical education and its influence on the level of patient care.
- d. Maintain the state societies' function in the accreditation and survey of institutions and organizations offering continuing education.
- e. Review periodically its role in continuing education to insure that it remains responsive to the needs of the practicing physician and that it continues to serve a useful function vis-a-vis its component members.

Article III: Membership

Section 1. All state and territorial societies shall participate with equal vote and be allowed two places on the council (we suggest that the Staff Director and CME Chairman be appointed). In the event of disability or other reason for non-attendance of members of any state committee, alternates may be appointed with full voting rights by each State Continuing Medical Education Committee.

Section 2. Appropriate individuals may be invited to participate in all deliberations of this body where their advice or counsel will be potentially helpful.

Article IV: Officers

Section 1. There shall be a Chairman, Vice-Chairman, and Secretary-Treasurer. No two offices may be filled by the same state society for a given term.

Section 2. The term of office shall be two years and no officer may serve for more than one term.

Section 3. The new officers shall take office at the conclusion of the last meeting in the second year.

Article V: Meetings

Section 1. The Council (CSCCME) shall meet at least twice per year on a schedule to be established by the membership on a yearly basis.

Section 2. The last meeting of each year shall coincide with the Annual Meeting of the AMA and shall be considered the Annual Meeting.

Section 3. Twenty-five percent (25%) of the membership shall constitute a quorum.

Section 4. Special meetings may be called by the Chairman or any 10 members of the Council. The purpose of such special meeting must be stated in the

call. Appropriate notice shall be given for a special meeting.

Section 5. Business of the Council may be conducted by mail ballots duly executed. In all matters affecting each of the states, mail referendum must be utilized so that all may participate in the deliberations. A mail ballot must have simple majority to be accepted. On all matters concerning bylaw changes, a mail ballot must also be conducted.

Article VI: Committees

Section 1. The Chairman shall appoint standing and special committees of the Council.

Section 2. The present and immediate past officers of the Council shall constitute an Executive Committee.

- a. The role of this committee will be to attend to matters assigned to it by the council and the management of business of the council as appropriate between meetings. The Executive Committee will report to council. An agenda for each meeting will be mailed to the entire membership.
- b. Any member can introduce an agenda item by written request.

Article VII: Finances

Section 1. Unless otherwise provided for and approved by the Council, expenses shall be borne in the following manner:

- a. The expenses of representatives to the Council shall be borne by the state societies.
- b. The expenses of the activities of the Council shall be borne by a small assessment on each member society.
- c. A report of all expenditures will be open for audit by all member societies.
- d. An annual financial statement shall be submitted to all member societies.

Article VIII: Parliamentary Authority

The rules contained within the current edition of Sturgis Standard Code of Parliamentary Procedure shall govern meetings of the Council in all cases to which they are applicable and in which they are not inconsistent with these bylaws of the Council.

Article IX: Amendments

Section 1. These bylaws can be amended at any regular meeting of the Council by a two-thirds vote of all members (on a mail ballot with two-thirds voting for the amendment). Such amendments shall not become effective until the next meeting of the Council.

American Medical Association House of Delegates, introduced by the Virginia Delegation at the AMA Convention 20 June 1977.

SUBJECT: Liaison Committee on Continuing Medical Education

WHEREAS a Liaison Committee on Continuing Medical Education (LCCME) has been established and is composed of various medical and medically related organizations, and

WHEREAS the American Medical Association is represented on this Committee, and

WHEREAS there are many physicians in this nation who are not members of the AMA and must, therefore, depend upon their State Medical Association to represent them in matters pertaining to Continuing Medical Education, and

WHEREAS the State Society Continuing Medical

Education Chairmen and staffs are reservoirs of experience and expertise in Continuing Medical Education activities, not sufficiently represented on the LCCME, therefore,

BE IT RESOLVED that AMA representatives on the Committee be requested to seek inclusion on the LCCME of three representatives from the organization of Chairmen of State Continuing Medical Education Committees.

American Medical Association House of Delegates, introduced by the Virginia Delegation at the AMA Convention 20 June 1977.

SUBJECT: Liaison Committee on Continuing Medical Education

WHEREAS a Liaison Committee on Continuing Medical Education (LCCME) has been established and is composed of various medical and medically related organizations, and

WHEREAS the American Medical Association is represented on this committee, and

WHEREAS there are many physicians in this nation who are not members of the AMA and must, therefore, depend upon their State Medical Association to represent them in matters pertaining to Continuing Medical Education, and

WHEREAS the State Society Continuing Medical Education Chairman and staffs are reservoirs of experience and expertise in Continuing Medical Education activities, not sufficiently represented on the LCCME, therefore,

BE IT RESOLVED that the AMA representatives on the Committee be requested to seek the inclusion on the LCCME and its review body of three representatives as permanent guests on each of these panels from the organization called Council of State Committees on Continuing Medical Education.

REPORT OF THE MEDICAL SERVICE COMMITTEE

Blaine Y. Roffman, M.D., Omaha, Chairman; Legislative Subcommittee: Robert F. Shapiro, M.D., Lincoln, Co-Chairman; Howard A. Dinsdale, M.D., Lincoln; Thomas G. Erickson, M.D., Fremont; Donald F. Prince, M.D., Minden; Harold R. Horn, M.D., Lincoln; Eugene M. Zweiback, M.D., Omaha.

The 1977 Legislative Session was somewhat of a relief for the legislative subcommittee in view of the whirlwind of activity that took place in 1976 with the malpractice bill, LB 434 which required the lions' share of the efforts of members of the Nebraska Medical Association. Nevertheless, there were still some bills of interest and some portents of action to come in future legislatures.

The record of NMA was good. There were situations where compromise was necessary and we lost on LB 317, the bill which related to filling of vacancies in the medical school enrollment.

LB 43 related to hospital financial reporting. After a great deal of effort the bill was modified to the point where the Medical Association did lend it its passive support. Although the Hospital Association opposed this piece of legislation, the bill was killed in the legislature.

LB 103 which permits drug substitution under certain conditions was supported by NMA in its amended form. This was a very controversial bill which had a great deal of public support including many consumer-oriented groups and groups of older people. Great

efforts were expended to get this bill modified into a form which would be acceptable to most physicians. We realize that all physicians were not happy as evident by the resolution to support repeal of this bill submitted at the spring meeting. We feel we did the best we could under the circumstances.

Below is the list of bills considered in the 1977 Legislature which pertained to medicine and a list of hearings to be held and legislative study resolutions to be held in the 1978 Session.

Respectfully submitted,
BLAINE Y. ROFFMAN, M.D.
Chairman

FINAL REPORT OF THE 1977 LEGISLATURE

LB 34 — Relating to mandatory rubella immunization. NMA position: neutral. Final status: killed in committee.

LB 37 — Provide financial assistance to podiatry students. NMA position: opposed. Final status: killed in committee.

LB 48 — Establish minimum standard health benefits (COIL bill). NMA position: no action. Final status: on general file.

LB 49E — Permits 17 year olds to donate blood and other tissues. NMA position: no action. Final status: approved by the Legislature.

LB 72E — Provides for certain birth recording criteria. NMA position: no action. Final status: approved by the Legislature.

LB 103 — Permits drug substitution under certain conditions. NMA position: support. Final status: approved by the Legislature, became law 9/1/77.

LB 115 — Provides driver's license sticker to designate anatomical gift. NMA position: no action. Final status: approved by the Legislature.

LB 138E — Creates Board of Advanced Prehospital Care, authorized paramedics to carry out certain duties. NMA position: support. Final status: approved by the Legislature.

LB 204 — Provides for the Alcoholism and Intoxication Treatment Act. NMA position: opposition to original bill; bill passed modified considerably. Final status: approved by the Legislature.

LB 207 — Provides for third party payments to chiropractors. NMA position: opposed. Final status: killed in committee.

LB 317 — Provides for filling of vacancies in medical school enrollment. NMA position: opposed to the concept. Final status: approved by the Legislature.

LB 325 — Provides for school psychologist registration and regulation. NMA position: no action. Final status: killed in committee.

LB 380 — Provides for certification of clinical psychology. NMA position: support. Final status: bill on general file and subject to action in 1978.

LB 400 — Provides for establishing a Natural Death Act. NMA position: no action. Final status: killed in committee.

LB 406 — Licensure of audiologists and speech pathologists. NMA position: support (ENT Society of amended version). Final status: bill on general file and subject to action in 1978.

LB 409 — Licensure of social workers. NMA position: opposed. Final status: killed in committee.

LB 412 — Licensure of acupuncturists and their assistants. NMA position: supported putting acupunc-

ture under medicine and surgery. Final status: killed in committee; however, Legislature has approved an interim study of the issue.

LB 440 — Require immunization and examination of primary students for childhood diseases. NMA position: no action. Final status: bill on general file and subject to action in 1978.

LB 397 — Provides for transfer of Norfolk Regional Center to the VA. NMA position: opposed. Final status: killed in committee.

LB 489 — Provide funds for Medical Center Rural Training. NMA position — no action. Final status: died in committee.

LB 494 — Established a Rural Health Commission. NMA position: support. Final status: approved by Legislature.

LB 501 — Provides for two physician certification of mental patients. NMA position: support. Final status: bill on general file and subject to action in 1978.

Hearings on the following Legislative Study Resolutions will be held prior to the 1978 Session:

LR 15 — Sudden infant death laws and procedures for reporting.

LR 41 — Laetrile as treatment drug for cancer.

LR 58 — Licensing of acupuncturists.

LR 110 — Reasons for escalating hospital costs.

REPORT OF THE EMERGENCY MEDICAL SERVICE COMMITTEE

Richard B. Svehla, M.D., Omaha, Chairman; Anthony J. Carnazzo, M.D., Omaha; Stephen W. Carveth, M.D., Lincoln; Harris B. Graves, M.D., Waterloo; Andris Matison, M.D., Lincoln; Dean A. McGee, M.D., Omaha.

The Emergency Medical Service Committee of the Nebraska Medical Association met on September 7, 1977, at the New Tower Hotel in Omaha, Nebraska. An extensive and productive meeting was held.

Considerable discussion and review was had on the status of the various emergency medical service programs within the state. It was obvious many organizations and groups are interested in the emergency medical service problem. For the success of all these programs, it is necessary to closely involve the medical profession, primarily the Nebraska Medical Association. From the discussion, however, it was obvious that adequate interplay between the multitude of interested parties and the Nebraska Medical Association was lacking. Interest by the Nebraska Medical Association is necessary for the success and support of these programs. It was recommended that the various groups in the State of Nebraska involved in the area of emergency medical services be contacted and encouraged to promote their cooperation and coordination with and through the Nebraska Medical Association. By so doing, a unified plan could be developed which would be supported and understood by the physicians and surgeons of the State of Nebraska.

The state-wide CPR campaign currently being carried out in Nebraska was reviewed. The committee supported and commended the actions of this program and encouraged the medical profession to continue its interest.

HR 7707 was described and discussed. This legislation calls for the establishment of first-aid techniques designed for use by persons without medical training for removing food which becomes lodged in a person's throat. These techniques will be distributed to food

service operations across the country. It was felt the basic concept of this program was meritorious. However, the methods used in the retrieval of lodged food should be techniques approved by nationally recognized organizations, such as the Red Cross, the Heart Association, or other similarly interested parties.

LB 138 was briefly reviewed. It was recommended that the contents of this legislation be investigated further. The urgent need appeared to be that all physicians should be knowledgeable of the aspects introduced by this bill (pertaining to the training and actions of EMTs, paramedics and other similar extra-medical groups), and that Nebraska physicians should understand their responsibility in monitoring and continuing the education of these newly-trained individuals.

Respectfully submitted,
RICHARD B. SVEHLA, M.D.
Chairman

REPORT OF THE PUBLIC RELATIONS COMMITTEE

Craig R. Nolte, M.D., Lincoln, Chairman; Richard D. Gentry, M.D., Falls City; John Hansen, M.D., Wahoo; Karl Neihaus, M.D., Omaha; Joseph C. Scott, M.D., Omaha; John C. Wilcox, M.D., Aurora.

The Public Relations Committee has met and considered the suggestions from the House of Delegates than an active public relations posture be taken especially in regards to accomplishments of the medicine and of the society itself.

We have reviewed the present public relations posture, and the excellent acceptance of the materials available to the media. This includes the periodic health tips and publications thereof, and the audio-visual presentations which have been made available to both the media and to individuals.

It has been noted that the media has been generally good in accepting NMA news releases and material of a public service nature, and these activities will be expanded wherever possible.

It has been considered that the NMA publish periodically a summary of advances in medicine using new source material, and this will be undertaken by our public relations consultants. In addition, the membership of our committee and the membership of the NMA at large is encouraged to carry out correspondence wherever indicated on a local level, and to notify the NMA of areas where they feel new public relations postures would be useful. Responses to specific issues and reporting of new developments will be considered individually, and suggestions will be disseminated to the membership.

Respectfully submitted,
CRAIG R. NOLTE, M.D.
Chairman

REPORT OF THE SCIENTIFIC SESSIONS COMMITTEE

Robert M. Stryker, M.D., Omaha, Chairman; Y. Scott Moore, M.D., Lincoln, Convention Chairman; Richard A. Cottingham, M.D., McCook; Ramon M. Fusaro, M.D., Omaha; Russell L. Gorthey, M.D., Lincoln; Richard A. Hranac, M.D., Kearney; Joel T. Johnson, M.D., Kearney; Bert J. Moor, M.D., Omaha.

This is the first report from your Scientific Sessions Committee in many years. Added responsibilities have prompted a report this year.

This committee was reviewed by the Medical Education Committee of the NMA at the last Scientific

Assembly on May 3, 1977. In June, 1977, the Council on Medical Education of the AMA designated the Scientific Sessions Committee of the NMA as an accredited organization qualified to sponsor or co-sponsor a Continuing Medical Education (CME) activity, and grant Category I credit towards the AMA Physician's Recognition Award (PRA).

The following statement is copied from the AMA booklet on the requirements for the PRA award:

"For the purposes of the Award, a planned program of CME is one having sufficient scope and depth of coverage of a subject area or theme to form an educational unit that is planned, coordinated, administered and evaluated in terms of educational objectives defining a level of knowledge or a specific performance skill to be attained by the physician participating in the program. Some of the kinds of CME activities that can be developed to meet the definition of a planned program of CME include:

- Lecture Series
- Grand Rounds
- Teaching Rounds
- Departmental Scientific Meetings
- Seminars
- Workshops
- Clinical Traineeships
- Mini-Residencies
- CME Courses of Medical & Medical Specialty Societies, including local, regional, state, national or international meetings."

As one can see, many of the educational learning experiences which are going on over the state could be qualified for Category I credit.

Listed below are the "Guidelines for the Issuance of AMA Category I Credit:"

1. The proposed activity must be sponsored/co-sponsored by the Scientific Sessions Committee of the Nebraska Medical Association.
2. Approval must be secured from the Scientific Sessions Committee prior to any publicity about the activity and prior to the beginning of the activity.
3. The activity is planned in response to an assessment of educational need for activities prepared prior to the beginning of that activity.
4. There is a written statement of objectives, rationale and purpose for such activities prepared prior to the beginning of that activity.
5. Content is selected and organized in a sequential manner.
6. The faculty selected for the teaching must be competent for the subjects to be presented.
7. The curriculum must be of suitable breadth and depth to achieve the objectives stated.
8. Suitable educational methods must be utilized to accomplish the stated objectives.
9. The program consists of not less than one instructional hour.
10. Evaluation procedures must be determined during the planning process to be used to measure the effectiveness of the program design and operation.
11. Specific requirements for the award of Category I credit must be established prior to the offering of the learning experience.
12. Registration procedures must be such that a permanent record can be maintained for each participant by the Nebraska Medical Association.

Your committee urges those physicians over the state

who are responsible for planning educational programs in their area, to qualify their programs for Category I credit. Requests should be sent to the Scientific Sessions Committee, c/o Nebraska Medical Association, 1902 First National Bank Building, Lincoln, Nebraska 68508.

This committee has already granted 18½ hours of Category I credit for a specialty program to be given in November, 1977, and has received several other requests which are now being reviewed.

This committee has been meeting monthly this summer in preparation for the Annual Scientific Meeting next spring in Lincoln. The program is nearly complete, and we feel it will again offer some excellent speakers on timely subjects. At the last meeting, 7½ Category I credits were awarded. At the meeting next spring, we hope to offer 10 credits. This can be accomplished by streamlining the program, including a scientific presentation at a breakfast, starting the session earlier in the morning, and having less NMA business before and/or after the scientific presentations.

As a requirement for Category I credit, physicians attending the last annual meeting completed evaluation forms concerning all aspects of the scientific portion of the meeting. The results have been completed, and have been extremely useful to this committee in planning for future meetings.

The committee considered the importance of recognizing our Fifty-Year practitioners and has decided the recognition and presentation of certificates should take place at the Medicine and Religion Dinner on Sunday evening. The event has become quite popular, and the committee feels the honor would be a highlight of the dinner.

The Annual Scientific Meetings for 1978 and 1979 are planned for the usual days of Sunday through Wednesday, around the first week in May. However, because of certain conflicts in Omaha with those days, the committee recommends that the 1980 meeting be held around the 1st of May, but consideration be given to a Thursday through Sunday meeting. The general format of the meeting would remain the same.

Respectfully submitted,
ROBERT M. STRYKER, M.D.
Chairman

REPORT OF THE AD-HOC COMMITTEE ON THE DISABLED PHYSICIAN

Henry Kammandel, M.D., Omaha, Chairman; A. H. Bonebrake, M.D., Nebraska City; John D. Coe, M.D., Omaha; Robert G. Osborne, M.D., Lincoln; H. C. Stewart, M.D., Pawnee City; Carlyle E. Wilson, Jr., M.D., Omaha.

This committee met at the State Medical Association on Tuesday, August 30, 1977. All committee members were present. Dr. Arnold W. Lempka, President, was also present and aided this committee by his background knowledge.

Historically: To date, thirty-two states have established a mechanism for identification, aid and rehabilitation of these particular difficult situations pertaining to alcoholism, drug addiction and mental incompetency. A symposium on this subject and workshops were carried out in San Francisco, April, 1975, and it became quite apparent that this problem is a national problem, and apparently on the increase. Because of this, your House of Delegates at the May, 1977 meeting felt that the need existed in the State of Nebraska since such problems do exist.

This Ad-Hoc Committee unanimously concurred with the charge.

Informational: At the present time, these problems are handled by statutory law by the Department of Health, Bureau of Examining Boards, and General Licensure Law of 1976, approved by the Governor March 11, 1976. These laws pertain to the procurement as well as revocation of medical licenses, and under Section 71-147.01 provide the state committees immunity from liability. "No member of a peer review committee of a state or local association or society composed of health practitioners licensed pursuant to the provisions of Chapter 71, Article 1, shall be liable in damages to any person for slander, libel, defamation of character, breach of any privileged communication, or otherwise for any action taken or recommendation made within the scope of the functions of such committee, if such committee member acts without malice and in the reasonable belief that such action or recommendation is warranted by the facts known to him after a reasonable effort is made to obtain the facts on which such action is taken or recommendation is made." It is recognized that the State Association can very definitely act as a liaison body and report their findings to the State Board of Medical Examiners if this is deemed necessary. They, in turn, of course have the legislative powers to not only further investigate the problem, but also pass judgement as to disposition of the problem.

Many avenues of approach were considered, and a philosophical format was concluded: Namely that there should be intercommunication with the State Association and the State Board of Medical Examiners. That the committee, first of all, should be sympathetic, be helpful to their colleague, be available for advice to all those that might come under their scrutiny, recognizing that their service not only extends to the fellow physician, but also to his family and to his community. That this committee also becomes an investigative committee should also be understood. The committee should be appointed by the President of the State Association. That this committee should not be posted. That the committee should have free access to the District Councilors.

Committee make-up: One chairman, two committee members, one of whom being a psychiatrist. That the procedural involvement of the problem should more or less follow the guidelines set forth by the Board of Councilors in Complaint Procedures. In order that the least number of people be involved, it is felt that once a complaint has reached the committee, either from the State Board of Health, directly to the Association by the physician involved, his family, colleague, or from someone in his community, that the primary investigative process be directed to the District Councilor for evaluation, who, in turn, will report to the Chairman of the committee. The committee then will direct one of its members to delve into the investigative process further, and if this member then deems it necessary the entire committee then becomes involved. The summation of the committee report will then be forwarded to the President of the Association for disposition of the problem.

To reiterate, it should be clearly understood that this committee should philosophically approach itself to aid the physician, his family and his community so that embarrassing problems need not be finalized by the State Medical Examiners Office. This committee and your State Association working then in liaison with the State Medical Examiners Office thus functioning for the

benefit of all physicians whether they are or are not a member of the Association.

Respectfully submitted,
HENRY KAMMANDEL, M.D.
Chairman

REPORT OF THE ALLIED PROFESSIONS COMMITTEE

Muriel N. Frank, M.D., Omaha, Chairman; Loren H. Jacobsen, M.D., Broken Bow; David L. Kutsch, M.D., Lincoln; Glen F. Lau, M.D., Lincoln; John H. Worthman, M.D., Cozad.

The Committee on Allied Professions met two times during the past year with representatives of the Physician's Assistants Association at their request.

The Physician's Assistants expressed their desire for a closer tie with the physicians in Nebraska. Their purposes as stated are:

1. To increase their educational opportunities;
2. To acquaint physicians with the areas of help offered by the Physician's Assistants;
3. To enlist the aid of physicians in areas such as legislation.

Their specific request is for an affiliate membership in the Nebraska Medical Association. This matter was considered by the Policy Committee.

Respectfully submitted,
MURIEL N. FRANK, M.D.
Chairman

REPORT OF THE CANCER COMMITTEE

F. William Karrer, M.D., Omaha, Chairman; William Albano, M.D., Waterloo; William T. Griffin, M.D., Lincoln; Bernard C. Korbitz, M.D., Omaha; Henry M. Lemon, M.D., Omaha; Claude H. Organ, M.D., Omaha.

Your committee has held one meeting since the Annual Session. At this meeting we continued our consideration and review of the laetrile issue. For the information of the House, there will be a public hearing by the Public Health and Welfare Committee of the Nebraska Legislature on the subject of laetrile. The date for this hearing is October 28, 1977, at the Barr Junior High School in Grand Island, Nebraska. Your committee will be present to present the NMA position on this subject.

At the July meeting, the committee discussed various activities which were to be referred to the House of Delegates in the form of recommendations. Additionally, the committee discussed and recognized that to be successful in defeating legislation that may be proposed in the Nebraska Legislature, would be a most difficult task and necessitate the assistance of the membership and friends of medicine.

Your committee is aware of the House of Delegates directive that a white paper be developed and sent to all members of the Legislature. It will be the intention of your committee to develop this paper and present it at the public hearing in Grand Island with subsequent mailing to the rest of the State Senators.

At the conclusion of our meeting, it was the unanimous opinion of the committee that the following recommendations be endorsed. The action of the committee was forwarded to the Policy Committee for review. In turn, this committee approved the following recommendations:

The Association engage in an education program for both members and the public with regard to laetrile.

The Association make every effort to coordinate a

program of opposition to proposed legislation with allied professions.

The Association make a firm commitment to defeat any legislation legalizing laetrile in the Nebraska Legislature.

In conclusion, your Cancer Committee recommends the following:

It is recommended the Association re-affirm the resolution on laetrile as approved at the 1977 Annual Session. A copy is attached to this report.

Respectfully submitted,
F. WILLIAM KARRER, M.D.
Chairman

WHEREAS, the modern scientific methods employing various combinations of chemotherapy, radiation therapy and surgical therapy which can favorably influence the course of most stages of most types of cancer with improvement of the quality of life and in some instances affect a cure of cancer, and

WHEREAS, delay in seeking effective modes of therapy may seriously jeopardize the possibility of treatment benefit or of potential cure of cancer, and

WHEREAS, there is no scientific evidence that laetrile (also known as Vitamin B17 or Amygdalin) is of any benefit in the treatment, cure or prevention of cancer; therefore be it

RESOLVED, the Nebraska Medical Association urges its members to utilize all proven methods of cancer treatment to improve the quality of care available to all cancer patients and improve the possibility of cure, and be it further

RESOLVED, use of unproven cancer remedies such as laetrile gives false hopes of curing patients so treated and of more importance prevent some patients from seeking and receiving effective treatment by methods which have been scientifically proven to be of value. It is the policy of this Association that Nebraska physicians must avoid use of any treatment relating to cancer patients which has not been proven to be effective by established scientific methods.

REPORT OF THE POLICY COMMITTEE

Arnold W. Lempka, M.D., Omaha, Chairman; Houtz G. Steenburg, M.D., Aurora; Harlan L. Papenfuss, M.D., Lincoln; Warren G. Bosley, M.D., Grand Island; James H. Dunlap, M.D., Norfolk.

The Policy Committee's area of activity has been broadly based since the Annual Session in May. This report will present a review of our efforts while acting as the NMA's policy-making body between sessions of the House of Delegates.

1. The committee reviewed the material considered by the Association's Board of Directors in arriving at their decision to recommend an \$80.00 dues increase. The financial data, membership statistics and the investment of reserves of the Association were reviewed in detail. The committee recognizes the need, possibly better than other Association committees, for additional meeting room space in the NMA Headquarters Office. The accelerated activities of our organization necessitate more meetings and adequate facilities at some future point must be provided.

The Policy Committee approved the information and the report of the Board of Directors and recommends an affirmative action regarding the dues increase.

2. The Policy Committee has kept abreast of the activities of the Association's Cancer Committee and the current position regarding laetrile. The Legislature has scheduled a public hearing regarding laetrile on Friday, October 28, in Grand Island. The NMA will be represented, and the official position of the Association along with our organization's "White Paper" will be presented. The Association will, at that point, initiate an education program regarding this drug, and in essence be establishing the commitment of the Association to defeat any laetrile legislation introduced in the 1978 Legislature.
3. The committee discussed the Omaha Medical Foundation's lottery. The background and organization of the activity were reviewed, as was the financial success. As the physicians active in the lottery are non-NMA members, the committee took no action.
4. The committee directed that contact be made with the Nebraska Department of Public Welfare regarding Medicaid abuses by physicians that might exist in the State of Nebraska. This item was referred to the NMA Ad-Hoc Liaison Committee with State Governmental Agencies, and an item covering that question will be presented in the Ad-Hoc Committee's report.
5. The AMA contacted each State Medical Association requesting its position on national health insurance, particularly HR 1818, as introduced by the AMA. The Policy Committee reaffirmed the NMA's current position on national health insurance and forwarded the resolution expressing our position to the AMA.
6. The Association was contacted by representatives of the Nebraska Academy of Physician's Assistants regarding the possibility of a membership status for the PAs in the NMA. The committee discussed this matter in detail and concluded that a membership status for PAs should not be considered at this time.
7. The committee has spent a considerable amount of time in the implementation of the Nebraska Hospital-Medical Liability Act. Meetings have been held with representatives of the St. Paul Insurance Companies, the Department of Insurance and others. There are countless details involved in the implementation of a law of this magnitude, but important progress is being made. Over 800 Nebraska physicians are now participating in the statute, and the rate of participation is continually increasing. The NMA Headquarters Office has mailed a sizable amount of information to Nebraska physicians regarding participation, and numerous telephone calls to the Headquarters Office have necessitated the addition of a third telephone line into the office. The Policy Committee recommends that every Nebraska physician study the benefits of the law carefully and analyze his particular situation. Participation in the statute will be very important, if a physician finds himself faced with a lawsuit.
8. The committee received a communication from Nebraska's hearing-aid dealers regarding a physician's referral form. This item was referred to the Nebraska Academy of Otolaryngology.
9. The committee discussed the various mechanisms used across the state to forward dues dollars to the NMA Headquarters Office. The various mechanisms utilized in billing, as well as procedures used in the

remitting of dues to the Association, were considered. The committee concurred that new members' dues should be forwarded to the Headquarters Office immediately in order for him to be enrolled in the Association without delay. Further, it was directed that counties be asked to forward funds at least one week prior to the deadline dates currently being utilized. In the consideration of dues payment, current practices concerning membership cards were also discussed. It was agreed that there is little need for requiring the County Medical Society Secretary to sign each NMA membership card. The committee directed that this requirement no longer be imposed.

10. The importance of Auxiliary activities relating to legislation was considered by the committee, and it was directed that an Auxiliary representative be invited to attend meetings of the Legislative Subcommittee of the Medical Service Committee.
11. The committee met with representatives of the University of Nebraska College of Medicine for purposes of better understanding current programs of the University and the financial situation currently being faced by that institution.

Respectfully submitted,
ARNOLD W. LEMPKA, M.D.
Chairman

REPORT OF THE AD-HOC LIAISON COMMITTEE WITH STATE GOVERNMENTAL AGENCIES

Warren G. Bosley, M.D., Grand Island, Chairman; James R. Adwers, M.D., Omaha; Charles M. Bressman, M.D., Omaha; John F. Fitzgibbons, M.D., Omaha; Donald Matthews, M.D., Lincoln; John Yost, M.D., Hastings.

The committee met on Thursday, 18 August, at the NMA Headquarters Office. Representatives of the State Department of Public Welfare distributed data to those present for their information and review.

The first item considered was the federal appropriation bill for certain welfare services, which included the amendment denying the use of federal money to pay for abortions, except in cases where the mother's life would be in danger and in cases of rape or incest. Initially, an injunction had been filed against this amendment, but the judge had removed the injunction recently, which made it possible for the Supreme Court to make a determination on this issue. The Court ruled Medicaid programs could not be required to pay for abortions, unless a state so elected. At the hearing on the regulations in Nebraska, over 200 people attended. Of the 54 who testified, 20 were in favor of severe limitation or curtailing of abortion, and 24 favored a more liberal policy than the one being proposed in the regulations. An informal vote taken among people who attended the hearing showed a 50:50 distribution for and against the regulations. Approximately 2,000 signatures were received during a period for public comment, and of these approximately 10 to 1 were opposed to abortion. The stated policy of the Department of Public Welfare will be: In those instances where a mother's life is thought to be in danger, the opinions of two independent physicians will be sought. Prior authorizations from the Department of Public Welfare will be sought in all abortions. In cases of rape or incest, a woman must report such a happening with the legal authorities within 24 hours and file a complete report, and she should seek professional help within 24 hours. In 1976, 512 abortions were paid for by Medicaid. 1 September 1977 is the probable date for implementation of Nebraska's new regulations on

abortion. If the two physicians disagree on whether or not an abortion should be carried out, a physician in the Welfare Department staff will cast a third and deciding vote. It was emphasized that this decision will be rendered within 24 hours, or orally if this is necessary. The Department indicated that each physician in Nebraska would be notified of this regulation, and that this should reach each member before this session of the House of Delegates.

The Welfare Department's new "Medicaid Physician Services Manual" was also discussed. On page 2, number 2, of this manual are procedures which require prior authorizations by the Department.

The committee also discussed with representatives of the State Welfare Department the matter of independent laboratory payments. A federal regulation had been published which stated that an independent laboratory must bill directly for work done for a physician on a Medicaid patient, and that the physician would not be paid for this laboratory work if billing was included with his own statement. Because of the problems created by this regulation, the Welfare Department will continue to pay for independent laboratory billings when these are included with the physician's bill, as it has done in the past. The Department stressed that they need the support of NMA and Nebraska physicians in fighting this federal regulation. The members of the House and all members of the Nebraska Medical Association are encouraged to continue to write Nebraska's Congressional Representatives regarding this matter and expressing their strong opposition to this regulation.

The discussion on MAC regulations was renewed at this meeting. The Department presented drug form MC-6, as found on page 35 of the "Medicaid Physician Services Manual." Samples of this have already been sent to all physicians of Nebraska. There was considerable discussion about drug substitutions and the few drugs shown on the MAC list were discussed. At the present time the list appears to include only two or three drugs and all physicians have been notified of this list.

The Early Periodic Screening, Diagnosis and Treatment Program (EPSDT) was discussed. Although this program, which includes services to children on ADC, has been not very successful in most of the states, Nebraska's program has worked very well. This program, and the reporting form, was worked out with representatives of the Maternal and Child Health Committee and the Nebraska Chapter of the Academy of Pediatrics. The Department emphasized this kind of cooperation has certainly made it possible to operate a successful program in Nebraska. Federal activity seems to indicate that this EPSDT program will be modified into a larger, more inclusive program for children, we fear as an initial step toward national health insurance.

The new hospital regulations which were issued by the Hospital Division of the State Department of Health were mentioned. This appeared to be a sweeping rewriting of these regulations, and the committee was directed to appear at the hearing and make pertinent comments to oppose these regulations in their present form. (This appearance was made approximately a week after this meeting, and the Department of Health proposes to hold another hearing in four months to receive further testimony. The Department asks that the NMA and other interested groups meet together in the interim, so that a regulation satisfactory to them might be presented to the Department of Health.)

Again, this committee is impressed with the excellent communication between the NMA and the various departments of state government to which we want to relate. We are convinced that these various agencies welcome rather than resent our involvement with them. Both the Department of Public Welfare and the Department of Health are heavily burdened by the federal agencies above them. They are eager to have us share this burden to our best ability.

The matter of Medicaid abuse was also discussed with a Welfare representative. It was pointed out Nebraska has very few abuses. Some time ago, the Department of HEW appointed an inspector-type force which was instructed to identify the ten "most likely" abusers among physicians and pharmacies. Their criteria were somewhat vague, and it is reported that they had a difficult time identifying any potential abuse in Nebraska. The Department emphasized it deplores this kind of arbitration procedure and again emphasized the need for each of us to respond through each of our Congressional representatives.

Respectfully submitted,
WARREN G. BOSLEY, M.D.
Chairman

REPORT OF THE CONSTITUTION AND BY-LAWS COMMITTEE

James P. Schlichtemier, M.D., Omaha, Chairman; R. L. Cassel, M.D., Fairbury; Earl J. Dean, M.D., Hastings; Harvey A. Konigsberg, M.D., Omaha; Harold M. Nordlund, M.D., York; Donald A. Dynek, M.D., Lincoln; James G. Carlson, M.D., Verdigre.

Because of the very extensive nature of the revisions of both the Constitution and By-Laws, the committee has undertaken to completely rewrite both the Articles of Incorporation and the By-Laws of the Nebraska Medical Association, with guidance from the Policy Committee and also legal counsel. A copy of the completely rewritten Articles and By-Laws are enclosed with and made a part of this report.

It is the recommendation of the Constitution and By-Laws Committee that the House of Delegates substitute the completely revised Articles and By-Laws in toto for the existing Constitution and By-Laws with the understanding that they will be resubmitted for final approval by the House at the Annual Session in 1978.

It is a further recommendation of the Constitution and By-Laws Committee that the House of Delegates adopt at this meeting, Chapter I — Membership, Section 5, having to do with Life Membership.

Respectfully submitted,
JAMES P. SCHLICHTEMIER, M.D.
Chairman

Report of Board of Councilors

The Fall Session of the Board of Councilors was held September 29, 1977, at the Hilton Hotel, Lincoln, Nebraska.

The meeting was called to order by Dr. Arnold Lempka, President of the NMA, and roll call showed the following members present: Drs. Carlyle Wilson, Louis Gogela, H. C. Stewart, James Carlson, Warren Miller, Richard Pitsch, Clarence Zimmer, Joel Johnson, Fred Rutt, Berl Spencer, Arnold Lempka, Houtz Steenburg, and Harlan Papenfuss.

Dr. Lempka called for nominations for Chairman of

the Board of Councilors. Dr. Wilson was nominated and there being no further nominations, Dr. Wilson was elected Chairman of the Board of Councilors.

Dr. Wilson assumed the Chair and called for nominations for Secretary of the Board of Councilors. Dr. Stewart was nominated and there being no further nominations, Dr. Stewart was elected Secretary of the Board of Councilors.

The reports and resolutions contained in the Handbook were discussed by the Board of Councilors.

In considering the Report of the Ad-Hoc Committee on PSRO, the motion was made to commend the PSRO committee for the fine logical report and recommended that in the third paragraph from the end, a sentence be added as follows:

"Many hospitals in the state are doing excellent review, some are not. We must improve and coordinate and document our review over the entire state if we indeed elect not to go the PSRO route."

This was seconded, and following discussion, it was moved that the words "some are not" be deleted and the following substituted, "but there is room for improvement in the state." This change was approved and the added sentence was approved as amended.

In considering the Report of the Ad-Hoc Committee on the Disabled Physician, it was suggested by Dr. Wilson, a member of the committee, the word "mental" be deleted in the second paragraph. Following discussion, this was approved.

Dr. Wilson suggested that in the fifth paragraph, the words "and hospital medical staff" be added after the words "Board of Medical Examiners."; that the words, "a hospital medical staff" be added after the word "colleague;" that the words "a hospital medical staff, or" be added after the words "be finalized by;" and that the words "the hospital medical staff and" be added after the words "in liaison with." These changes were approved by the Board, for recommendation to the Reference Committee.

In considering the proposed Articles and By-Laws, the Board of Councilors approved and recommended the following changes;

Page 8, Section 2, second paragraph, delete the word "continental" in the last line.

Pages 9 and 10, Section 5, this entire Section concerning Life Membership was approved by the Board of Councilors.

Page 36, item (f), the Board accepted the legal counsel's opinion to leave this paragraph as recommended by the Constitution and By-Laws Committee.

Page 38, item (k), delete the words "regular United States mail with sufficient postage attached" and substitute the words "by registered or certified mail."

Page 37, item (g), (1), add the words "and/or without merit."

Page 39, Section 5, the legal counsel's opinion was accepted concerning the selection of the Council on Professional Ethics, to leave as recommended by the Constitution and By-Laws Committee.

Page 39, Section 6, add the following sentence at the end of this section as follows: "The Chairman of the Board of Councilors shall be an ex-officio member of the Board of Directors."

All other reports and resolutions in the Handbook were reviewed and approved as written, and referred

to Reference Committees and the House of Delegates for their consideration.

The listing of Fifty-year Practitioners and requests for Life Membership were considered and approved by the Board of Councilors.

There being no further business, the meeting was adjourned.

Report of House of Delegates

FIRST SESSION

The first session of the House of Delegates was held September 30, 1977, at the Hilton Hotel, Lincoln, Nebraska. The meeting was called to order by the Speaker, Dr. McFadden.

Roll call showed 57 delegates were present, and the meeting was declared in session.

Dr. McFadden called for approval of the minutes of the Annual Session meetings of the House of Delegates, as printed in the July, 1977, issue of the Nebraska Medical Journal, and these were approved as printed.

Dr. Lempka, President introduced Mr. Larry Yarbrough, representative of Sandoz Pharmaceuticals, for presentation of the award-winning plaque and \$500 check to the Nebraska Medical Journal. This was accepted by Dr. Cole, Editor of the Journal.

Oral reports were presented by the following:

Dr. Guy Matson, Chairman, Advisory to the Auxiliary Committee

Dr. Jerald Schenken, Chairman, Ad-Hoc Committee on Federal Legislation

Dr. Lempka, President, gave the following report:

"Fellow Colleagues! I am happy to report business as usual in the Nebraska Medical Association, fine groups of committees are working diligently and the many reports are in the handbook, and discussion will be carried on in Reference Committees. Items of concern this year have been the new Constitution, National Health Insurance, PSRO, Cost Containment, Dues Increase, the Laetrile problem, Disabled Physician and many other items. There are two subjects that need more discussion. One is the malpractice legislation and the other is the proposed regulations for hospital licensure. I will take the new hospital regulations first.

"A year ago, although nobody recalls this, the board of licensure for hospitals requested an input on new regulations that they were going to draw up because the old ones were twenty years old. They stated that there was no response to this request, so the Health Department assigned sections to their own select people and wrote their own regulations and standards. What they did was change 18 pages of regulations to 261 pages of regulations and standards and then set up a hearing on August 23rd in regards to these new regulations. On a rumor they existed, our staff got a copy of the new regulations about a week before the hearing. When they looked at them, they turned white — when they asked me to look at them, I turned red, quickly gathered some forces to include our legal advisor, went to the hearing with a plea for postponement, as the task of reviewing the many new regulations was too voluminous to cover in a few days. We were there and so were numerous other people including hospital representatives, doctors, architects and other interested people. The room was full and after hearing 25 minutes of testimony, a recess was

called. No one testified in favor of the new regulations and all they heard was opposition and requests for postponing the hearing so that more time could be given in regard to reconsidering many of the items on the new regulations. A five minute recess was called and when they returned, they had granted a continuation of the hearing to December 1st, asking that any input would have to be received by them by the 1st of November so they could look at it for a month.

"After the hearing, we realized that we had found a friend in the Nebraska Hospital Association and felt we could work together with them towards the same goal. We quickly formed an ad-hoc committee and the Hospital Association did likewise. We got an appointment with Mr. Wm. Page, the head of the Department of Hospital regulations for the state. Some of you might recognize him as a former inspector of hospitals for Medicare. We met with him with the idea that we wanted to establish a liaison, that we wanted to have input on the new regulations and he assured us that all suggestions were welcome, that there was no item in the new regulations that could not be negotiated. He explained that the new regulations was not pressure from anybody, but he wanted to establish the best hospital regulations in the nation.

"Well, what are our concerns? We felt the new regulations were too stringent for rural Nebraska. We felt that they might close down half of our rural hospitals because of the rigid nature of some of the regulations. They were not proposing minimal standards to qualify for licensure, but they were proposing optimal standards, which would be impossible for some of our hospitals to reach. Not only that, but they duplicated many rules and regulations of Medicare and the Joint Commission on Hospitals. They also give what I think is too broad of power to PA's and in some areas they even tell the doctor how to practice medicine. So the ad-hoc committee was set up and the 25 sections in the new hospital regulations were divided up and assigned to various members of our own ad-hoc committee and their charge was to review their section carefully, write a critique, submit it to the staff here in Lincoln who would compile the various critiques in a package, redistribute them by mail to the various committee members, then we would meet next week to discuss the various critiques and plan our future activities. Mind you the work has to be done by the committee by November 1st, with the hearing on December 1st. All interested people should take a look at the new regulations. Either get a copy of them from your hospital or from the Public Health Department because anyone can have input and anyone can appear at the hearing.

"And now for an update on malpractice. On July 20th this year, the Nebraska Supreme Court ruled that LB 434, was constitutional and that is the malpractice bill that was passed last year on July 10th. The Supreme Court ruling in fact made the law constitutional since July 10th of last year. It now appears on the books with a new number but it is the same law and it means that everybody that paid in on this new insurance last year, was covered and anyone paying on it now will be covered from now on as long as he pays the premium. Immediately after the constitutionality as declared this last July of this year, the special legislative malpractice insurance committee, formerly spoken of as the Malpractice 5, was called back into action and they met with Berri Balka, the Insurance Director for the State of Nebraska and discussed the implementation of this law. It was an amicable meeting and all offered to

cooperate in every way possible. So the new malpractice law is a viable growing entity.

"Now how do you get into the new law? Mind you, if you don't get into the new law, you are back in the old law which was not changed and has the same provisions that existed for years and still exists unaltered. But to get under the new law, you have to take a positive step and that is first to buy your basic malpractice insurance from the company you choose. It can be any company that sells malpractice insurance in the State of Nebraska. This basic coverage has to be 100,000-300,000 dollar policy. Then to come under the law, you take half the premium you paid for the basic policy and send it in to the State Insurance Director with proof that you do have that basic policy of 100,000-300,000 dollars. This extra 50% that you pay to the Insurance Director in Lincoln gives you all the coverage for insurance that is necessary, but you do have to put a sign up in your main office or main place of business stating that you are practicing medicine under the new law.

"The advantages are several in number including saving money especially if you stay under the law for more than the next three or four years. Some of the advantages of the new law include a reduction of the statute of limitations to two years from the time of the act that was considered a malpractice. Other provisions state that it cannot be any longer than one year after the discovery of the act and in no case more than six years from the time that it happened which is a big advantage to those taking care of children. Another advantage is that your own insurance pays the first 100,000 and the state will pay the rest of any lawsuit that comes under this new law. The new law provides a review panel and this probably would eliminate a number of the lawsuits of the nuisance variety. These would have to be reviewed and probably would be thrown out by the review panel if they have no merit or would ever go to any court. Another advantage that you would be entitled to is the elimination of your regular umbrella policy and the premium on the regular umbrella policy has been something to reckon with. This is one particular item that the malpractice insurance carriers are a little bit unhappy about because when I queried one of them whether or not they were happy with the new law, they indicated 'well, yes, they were,' but it cost them about a million dollars which probably is a little exaggerated, but anyway there will be a savings to you, the doctor, in your umbrella coverage. Another point worth considering in the new law is that the informed consent is clarified. It spells out just what informed consent means. Another advantage is that the law makes it possible for every doctor in the state to get insurance. This is by a special provision which I will not get into at this time. Another distinct advantage is that the new law prevents the loss to be made in a dollar amount and prevent the headlines that hit the paper that doctor so and so is sued for three and a half million dollars. The headlines would have to be changed to doctor sued for leaving a sponge in abdomen or something like that.

"So much for some of the advantages that the doctor would derive from the new law. What about the patient? Does he have any advantages? Yes, there are several for the patient . . . first of all it provides him that review panel which gives him a chance to review his case and find out whether he is justified or not in making a lawsuit, and would not be at the mercy of somebody saying 'Oh, go ahead and sue the doctor.' Another advantage the patient would get is he can be assured a settlement up to five hundred thousand

dollars if it is a justifiable case, then too, the patient would be able to get expert testimony which might be hard to come by if he had to find it on his own. There is also provision in the new law that would protect patients from the so-called bad doctor by a special medical qualifications commission that would tend to eliminate this person from practice. Another advantage to the patient is this is a speedy mechanism and would tend to expedite any claims. The new law has another advantage to the patient in possibly making doctors more available because the insurance is obtainable and at a lower cost. Another provision of the law that would be to the advantage of the patient is that the court can rule whether or not the attorneys fees are reasonable in any particular case saving maybe more money for him in the judgment.

"So the program is moving very well. Some 800 doctors are already in it, but remember those of you that are in it, you are to pay your premium yearly. There is provision in the law for hospitals to get into this program and the more that get in it, the further rates will go down. There are a few points that I did not cover at this time in order to save some time. If there is any question in your mind about the new law, please contact our staff here in Lincoln or any member of the legislative committee on malpractice and they'll either have the answer or get it for you."

Dr. McFadden read the following selection of members to serve on the Reference Committees, and these were approved by the House:

Reference Committee #1

Dr. Warren Bosley, Chairman
Dr. Robert Fitzgibbons
Dr. M. E. Samuelson

Reference Committee #2

Dr. Herbert Reese, Chairman
Dr. Donald Prince
Dr. Richard Donaldson

Reference Committee #3

Dr. John Coe, Chairman
Dr. R. R. Andersen
Dr. Thomas Wallace

Reference Committee #4

Dr. Wm. Chleborad, Chairman
Dr. Howard Dinsdale
Dr. Alvin Armstrong

Reference Committee #5

Dr. James Carlson, Chairman
Dr. William Rumbolz
Dr. Kenton Shaffer

Reference Committee #6

Dr. Richard Cottingham, Chairman
Dr. Gordon Francis
Dr. F. F. Paustian

Assignment of reports and resolutions to Reference Committees, were made as follows:

Reference Committee #1

Fifty Year Practitioners and Life Membership Requests
State Department of Health
Health Education in Schools and Colleges
Public Relations
Ad-Hoc Liaison Committee with State Governmental Agencies
Policy Committee — Item 4
Resolution #3 — Foreign Medical Students

Reference Committee #2

Board of Directors
Executive Secretary
Health Planning
Ad-Hoc Committee on Disabled Physician
Policy Committee — Items 1 and 9
Resolution #5 — Annual Financial Review

Reference Committee #3

Delegate to the AMA
Ad-Hoc Committee on PSRO
Emergency Medical Service
Allied Professions
Cancer
Policy Committee — Items 2 and 6

Reference Committee #4

Editor, Nebraska Medical Journal
Ad-Hoc Committee on Federal Legislation
Medical Service
Policy Committee — Items 3, 5, 7 and 8
Resolution #1 — Commendation for Malpractice Efforts
Resolution #4 — National Health Insurance

Reference Committee #5

Creighton University School of Medicine
University of Nebraska Medical Center, Dr. Vanselow
University of Nebraska College of Medicine, Dr. Rigby
Advisory to the Auxiliary
Medical Education
Scientific Sessions
Policy Committee — Items 10 and 11
Resolution #2 — Cost Containment Course

Reference Committee #6

Constitution and By-Laws Committee
Proposed Articles and By-Laws

Dr. McFadden called for resolutions from the floor, and none were presented.

Dr. Wilson, Chairman of the Board of Councilors, commented on the minutes of the meeting of the Board of Councilors which were printed and given to each delegate.

Dr. Truhlsen called attention to the brochure which was available to each person concerning the stand of the AMA over the past years on national health insurance.

Dr. Sadaj asked if a committee of the Association had considered the resolution passed by the House at the Annual Session concerning opposition to HR 2222, dealing with resident physicians fully as employees. The Chair indicated that a check would be made and reported to the House at the second session on Saturday morning.

There being no further business, the House was recessed until Saturday morning.

SECOND SESSION

The second session of the House of Delegates was held October 1, 1977. The meeting was called to order by the Vice Speaker, Dr. Landgraf.

Roll call showed 51 delegates present, and the meeting was declared in session.

Dr. Landgraf called for approval of the minutes of the first session as printed and in the hands of the delegates. These were approved as printed.

Dr. Landgraf announced the death of Dr. O. M. Troester of Hampton, on Thursday. The Chair directed that the minutes of these proceedings express the regret of the House of Delegates and that a communication be directed to the family of Dr. Troester expressing sympathy.

Dr. Landgraf reported to the House on the resolution approved at the Annual Session meeting regarding opposition to HR 2222, and assured the House this matter will be directed to the proper committee and will be reported on at the 1978 Annual Session.

The Chair called for reports of the Reference Committees and the following were presented:

Reference Committee #1

Reference Committee #1 considered six reports and one resolution. The Reference Committee submits the following report and recommendations.

(1) FIFTY YEAR PRACTITIONERS

The Reference Committee first considered the item of Fifty Year Practitioners. The list is as follows:

Box Butte County:

Dr. Joseph Kunch, Alliance

Dawson County:

Dr. Bert W. Pyle, Gothenburg

Four County:

Dr. Roy S. Cram, Burwell

Greater Omaha:

Dr. Leland Albertson, Omaha

Dr. Olin J. Cameron, Omaha

Dr. John M. Christlieb, Bellevue

Dr. Clarence S. Moran, Omaha

Dr. John R. Schenken, Omaha

Washington-Burt County:

Dr. Isaiah Lukens, Tekamah

York County:

Dr. Ben N. Greenberg, York

Recommendation:

We recommend that each of these practitioners be approved for fifty-year awards at the 1978 Annual Session.

MR. SPEAKER, I RECOMMEND ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) LIFE MEMBERSHIP REQUESTS

The next item considered by this Reference Committee was that of Life Membership requests. The list is as follows:

Cass County:

Dr. R. R. Andersen, Nehawka

Greater Omaha:

Dr. Albert V. Murphy, Omaha

Dr. Edmond M. Walsh, Omaha

Dr. Raymond J. Wyrens, Omaha

Hall County:

Dr. McCleery Glazier, Grand Island

Dr. D. P. Watson, Grand Island

Lancaster County:

Dr. Paul D. Marx, Lincoln

Your Reference Committee is aware of the changes being proposed for Life Membership in the report of the Constitution and By-Laws Committee. However, the Reference Committee believes this recommendation should be based on existing By-Laws which state: "Life Membership may be granted to a member in good standing who has been in practice for 40 years, upon

written request from his component society." Each of these recommended physicians have been in practice for 40 years, and the county societies have filed the proper requests.

Recommendation:

Considering this, your Reference Committee recommends approval of these physicians for Life Membership.

MR. SPEAKER, I RECOMMEND APPROVAL OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) STATE DEPARTMENT OF HEALTH REPORT

The Reference Committee next considered the report of the State Department of Health submitted by Henry D. Smith, M.D., Director. The report points out that Nebraska physicians are doing an effective job in immunizing children against the traditional childhood diseases. Over 90% of school age children in Nebraska are immunized against most of these diseases. Your committee believes it is important to emphasize this fact, since the number of children immunized against communicable diseases, like the infant mortality rate, is a common parameter used by health planners to evaluate the effectiveness of "health delivery."

Your committee recognizes the close cooperation between the Nebraska Medical Association and the Department of Health and, like Doctor Smith, looks forward to this continuing.

Recommendation:

MR. SPEAKER, I RECOMMEND ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF HEALTH EDUCATION IN SCHOOLS AND COLLEGES COMMITTEE

The Reference Committee next considered the report of the Committee on Health Education in Schools and Colleges. Your committee calls the attention of the House to paragraph 3 of this report, which indicates the involvement of physicians in Nebraska in health education in their communities. Your committee calls attention to the Nebraska Conference on Health Education which is scheduled for 18-20 October. The House should note that the health systems agencies are developing programs for health education and that this conference appears to be a further effort in this kind of planning. Members of the Nebraska Medical Association should be aware that these plans are being made. The committee notes the proposal that a research center in health education be developed to accomplish certain objectives in the area of health education. Although such a center may be necessary in developing an excellent program in Nebraska, your committee believes that efforts must be continued to prompt the Department of Education to implement legislation passed a few years ago which requires health education programs in all schools in Nebraska. For various reasons, this law has not been implemented fully, and your Reference Committee believes this must be done as a first step in enhancing health education in Nebraska.

Recommendation:

Your Reference Committee recommends adoption of the report of the Committee on Health Education in Schools and Colleges.

MR. SPEAKER, I MOVE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) REPORT OF THE PUBLIC RELATIONS COMMITTEE

The Reference Committee next considered the report of the Public Relations Committee. Your Reference Committee notes the emphasis that members of the NMA be urged to notify the office of areas in which they feel public relations action would be useful. Testimony was heard again that the Nebraska Medical Association must take a more aggressive and more positive approach to public relations. The speaker urged the Public Relations Committee to become much more active in developing reports and publicity on what physicians are doing and the excellence in their performance. The speaker suggested we were much like a football team who has only a defense and no offense, and that few football games are won by defense alone.

Recommendation:

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(6) REPORT OF THE AD-HOC LIAISON COMMITTEE WITH STATE GOVERNMENTAL AGENCIES

Your Reference Committee next considered the report of the Ad-Hoc Liaison Committee with State Governmental Agencies. Testimony on this report concerned first the matter of independent laboratory payments. One speaker emphasized that physicians should consider carefully exactly what their fee should be for handling laboratory specimens. He pointed out that careful cost accounting should be used in establishing these charges, since this is one area where "abuses" might be identified by HEW's Inspector General. The speaker pointed out that implementation of the federal requirements will certainly increase the cost of laboratory work, since laboratories must go through the usual billing and collection procedures for each patient with whom they deal.

Recommendation:

Your Reference Committee recommends that the Nebraska Medical Association express its opposition to these regulations and that this opposition be reported to the usual national representatives, offices, and agencies.

MR. SPEAKER, I MOVE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

Your committee considered further in the report the matter of Medicaid abuse. It was reported to the committee that HEW has set up an Inspector General's Department and that "a study will be undertaken in the Medicaid program to identify and analyze the most extreme cases of apparent excessive doctor's services and drugs provided to individuals." A computer program has been perfected to "attack this problem on a wide scale." The computer applications will be run against State Medicaid claim files to "quickly identify those doctors and druggists most likely to be providing excessive services and drugs."

Recommendation:

Your Reference Committee recommends that the Nebraska Medical Association express to the Department of Health, Education and Welfare its concern about this program and its hope that the program will be conducted accurately and with careful review to avoid false or inaccurate reporting.

MR. SPEAKER, I MOVE ADOPTION OF THIS

SECTION OF OUR REPORT. This was approved by the House.

(7) REPORT OF THE POLICY COMMITTEE — ITEM #4

Your Reference Committee also considered Item 4 in the Report of the Policy Committee dealing with Medicaid abuses, which the Reference Committee believes has been covered in the previous motion.

(8) RESOLUTION #3 — (GREATER OMAHA MEDICAL SOCIETY) — FOREIGN MEDICAL STUDENTS

Your Reference Committee next considered Resolution #3, introduced by the Greater Omaha Medical Society, subject: Foreign Medical Students, which read as follows:

RESOLVED, that the House of Delegates instruct the Medical Education Committee to study the impact on medical education of LB 317 regarding foreign medical students.

LB 317 was approved by the Governor on April 2, 1977, and is law in Nebraska. This law states:

"Section I — If any vacancy occurs in the enrollment of the University of Nebraska College of Medicine in the first two years of study, such vacancies shall be offered to a student attending an out-of-state or foreign medical school who (1) was a Nebraska resident immediately prior to enrollment in such out-of-state or foreign medical school, (2) has completed at least two years of study in such out-of-state or foreign medical school, and (3) has passed Part I, of the National Board of Medical Examiners examination or a comparable examination.

"Section II — Any individual seeking admission to the College of Medicine pursuant to Section I of this Act shall meet any requirements that may be prescribed by the Board of Regents."

Your committee heard comments from medical school faculty, from residents and from medical students. Members of the House will remember that there is a federal regulation which requires colleges of medicine to accept residents of the United States who have finished a prescribed term in a foreign medical school if they received certain federal funds for medical education. Those colleges of medicine who refuse to accept these students, will have certain federal funds withheld. It was pointed out to the Reference Committee that the financial impact of such withholding seems to require our medical schools to accept these students, even though federal regulation and LB 317 do usurp and interfere with the traditional admission policies of colleges of medicine. Your Reference Committee believes that such interference implies serious risk of reducing the quality of students admitted to colleges of medicine and, in effect, the quality of physicians and medical care available to the public.

Recommendation:

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I RECOMMEND ADOPTION OF THE REPORT OF REFERENCE COMMITTEE #1 AS A WHOLE. This was approved by the House.

Respectfully submitted,
Dr. Warren Bosley, Grand Island,
Chairman
Dr. Robert Fitzgibbons, Omaha
Dr. M. E. Samuelson, Wymore

REFERENCE COMMITTEE #2

Reference Committee #2 considered five reports and one resolution. Your Reference Committee submits the following report and recommendations.

(1) REPORT OF THE BOARD OF DIRECTORS REPORT OF THE POLICY COMMITTEE, ITEMS 1 and 9 RESOLUTION #5 — (GREATER OMAHA MEDICAL SOCIETY) — ANNUAL FINANCIAL REVIEW

Testimony was heard simultaneously on the Report of the Board of Directors, the Report of the Policy Committee, Items 1 and 9, and Resolution #5, due to their similarity. Projections of financial expenditures for 1978 were reviewed, and Dr. Charles F. Ashby was present for testimony. All testimony that was received and heard reflected the Board's recommendation that the dues be increased by \$80, bringing the yearly dues to \$200. This is to become effective January 1, 1978.

There was no testimony on Items 1 and 9 of the Policy Committee Report.

There was considerable discussion regarding the Greater Omaha Medical Society's Resolution #5 which read as follows:

WHEREAS, it has become necessary over the past several years to periodically increase the dues, and

WHEREAS, this has been done infrequently and in large increments;

THEREFORE, BE IT RESOLVED, that the Board of Directors of the NMA make an annual review of the financial needs of the NMA and make annual recommendations for dues adjustments in order to balance the budget and build up our reserves to the level of one year's expenses.

It was the consensus of those present that the Board of Directors indeed do an annual review of the financial needs of the Nebraska Medical Association but an annual recommendation on dues has not always been made. It was also the consensus of those present that the final statement should read to "an approximate" level of one year's expenses. This would indeed allow some leeway for the Board. Your Reference Committee recommends that the RESOLVED portion of this resolution read as follows:

THEREFORE, BE IT RESOLVED, that the Board of Directors of the NMA make an annual review of the financial needs of the NMA and make annual recommendations for dues adjustments in order to balance the budget and build up our reserves to an approximate level of one year's expenses.

Recommendations:

(1) Your Reference Committee recommends approval of the Report of the Board of Directors found in the Handbook.

(2) The reasons for dues increases should be disseminated to the membership through the newsletter.

(3) Your Reference Committee recommends the approval of the Report of the Policy Committee, Items 1 and 9, found in the Handbook.

(4) Your Reference committee recommends approval of Resolution #5, introduced by the Greater Omaha Medical Society dealing with annual financial review, as amended.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded and following discussion was approved by the House.

(2) REPORT OF THE EXECUTIVE SECRETARY

The Report of the Executive Secretary, found in the Handbook, was reviewed, as was the 1977 membership data. The Executive Secretary, Mr. Ken Neff, discussed this report. There was no further testimony heard on this report.

Recommendation:

Your Reference Committee recommends approval of the Report of the Executive Secretary as found in the Handbook.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE HEALTH PLANNING COMMITTEE

Your Reference committee reviewed the Report of the Health Planning Committee found in the Handbook. It was pointed out that the Nebraska Health Manpower Plan was finalized, and that the Nebraska Medical Association had input into the Plan, but obviously would not be in agreement with all aspects of the Plan. It was very evident to this committee that PL 93-641 in the future will occupy a great deal of the Association time. The committee took note of the last paragraph of the report; that it is anticipated that some specific recommendations regarding the manpower study, the Nebraska Medical Association's future role in health planning and its relationship to PL 93-641, and other committee projects will be forthcoming by the Annual Session of the NMA in 1978.

Recommendation:

Your Reference Committee recommends approval of the Report of the Health Planning Committee as found in the Handbook.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Dr. Francis spoke concerning the portion of the report which suggests the use of physician extenders in communities where there are no physicians. He moved that the NMA stand against physicians extenders operating as independent practitioners and that we oppose implementation of this portion of the Plan. This was seconded, and it was pointed out that at the present time, the law does not allow such action. Dr. Cornelius said we would have to recognize that there is legislation at the national level to allow this sort of thing, but at the present the State of Nebraska does prevent this type of activity. He suggested that letters should be written to our Congressmen and also personal contact made, as this would have more impact as there is support for this type of activity within our Congressional delegation.

The motion made by Dr. Francis was approved by the House and this section of the Reference Committee report was approved as amended.

(4) REPORT OF THE AD-HOC COMMITTEE ON DISABLED PHYSICIAN

Your Reference Committee reviewed the Report of the Ad-Hoc Committee on the Disabled Physician in the Handbook. There were no committee members at the Reference Committee session and no specific testimony was heard. The referral mechanism for complaints to this committee was not clear to the Reference Committee. The report gave reference to the appointment of a committee on the disabled physician, but no specific recommendation of this committee being appointed. During discussion with a committee member,

Dr. Carlyle E. Wilson, following the Reference Committee session, it was pointed out it was indeed the intent of the committee to recommend the appointment of a committee on the disabled physician to function as set forth in the report.

It was felt referrals to this committee with our present By-Laws will be by the Board of Councilors and therefore the following should be struck. In paragraph 6 of the report, after the words "it is felt that once a complaint has reached the committee," delete "either from the State Board of Health, directly to the Association by the physician involved, his family, colleague, or from someone in his community,"

The committee took into consideration the minutes of the Board of Councilors and recommend the following changes in line with the recommendations of the Board. In paragraph 2, delete the word "mental." In paragraph 5, add the words "and hospital medical staff" after "State Board of Medical Examiners." In paragraph 6, after the words "District Councilor" insert the following "and the local county president." In paragraph 7, add the words "a hospital medical staff or" after the words "be finalized by." In paragraph 7, add the words "the hospital medical staff and" after the words "in liaison with."

To prevent duplication and multiple investigation, the Reference Committee feels there must be close liaison with the Medical Qualifications Commission, the Nebraska State Board of Medical Examiners, the Board of Councilors and the Professional Ethics Council.

Recommendations:

(1) Your Reference Committee recommends acceptance of the Report of the Ad-Hoc Committee on the Disabled Physician, found in the Handbook, as amended.

(2) Your Reference Committee recommends that a committee on the disabled physician should be appointed by the President of the Nebraska Medical Association and that this committee should not be posted.

(3) This Reference Committee recommends a very close liaison between this committee on the disabled physician, the Board of Councilors, the Professional Ethics Council, the Medical Qualifications Commission and the Nebraska State Board of Medical Examiners.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #2 AS A WHOLE AS AMENDED. This was approved by the House.

Respectfully submitted,
Dr. Herbert E. Reese, Lincoln,
Chairman
Dr. Donald F. Prince, Minden
Dr. Richard E. Donaldson, North Platte

Reference Committee #3

Reference Committee #3 considered six reports. Your Reference Committee submits the following report and recommendations.

(1) REPORT OF THE DELEGATE TO THE AMA ANNUAL SESSION

(a) The consensus was that it would be desirable to have a newly-created spokesman for the AMA who

could promptly respond to questions of policy. However, it seems desirable to maintain a President elected by the membership which would assure membership participation in matters of policy.

Recommendation:

That the AMA continue its present method of election of its President and that consideration be given to appointing a qualified spokesman for the Association.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(b) The AMA Comprehensive Health Care Insurance Act (HR 1818 - S 218) There is a conflict in the AMA position in regard to these bills. In spite of their avowed opposition to the concept of nationalization of health care, these bills in fact suggest the support of the AMA for some type of national health insurance.

Recommendation:

The Nebraska Medical Association reaffirms its opposition to national health insurance in any form.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(c) Membership in the AMA. It was noted that the AMA Delegate expressed concern over the fact that many members of the Nebraska Medical Association are not members of the AMA. Discussion was held as to the means of correcting this.

Recommendation:

This matter should be referred to an appropriate committee of the Nebraska Medical Association which should study and provide a means of support to promote membership in the AMA through the component societies.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE AD-HOC COMMITTEE ON PSRO

The committee should be commended upon the position it has maintained these past three years and the concise documentation of actions taken during that period of time.

Discussion was held which pointed out that peer review has appreciably improved during these past three years, and that physicians still remain as the patient's advocate and are primarily concerned with good patient care. The main thrust of PSRO continues to be cost control as was pointed out by Chairman Stark of the Oversight Subcommittee of the House Ways and Means Committee in April of 1977. The discussion brought out the fact that the Nebraska Medical Association should not involve itself in establishing a PSRO. It was suggested the Ad-Hoc Committee continue monitoring these matters until this responsibility can be assumed by an appropriate committee or council under the new Nebraska Medical Association Articles and By-Laws.

Recommendations:

(1) Alter the next to the last paragraph in the report to read as follows: "Individual medical decisions are best made only by that patient's attending physician and the PSRO interest is that of rationing care."

(2) The committee recommends that the physicians of the State of Nebraska make no attempt to establish a PSRO.

(3) In the event an alternate PSRO is established, the guidelines of the AMA regarding alternate PSROs should be adhered to. These guidelines are as follows:

(a) Any alternate PSRO organization must not deviate from the level of medical expertise and review competence required of the preferred physician PSROs.

(b) Physicians performing review in an alternate PSRO must be duly licensed, practicing doctors of medicine or osteopathy.

(c) In no case, should any final adverse determination by an alternate PSRO with respect to the conduct or provision of care by a physician be made by anyone except another qualified physician.

(d) Physicians assigned the responsibility for the review of hospital care should be only those having active hospital staff privileges in at least one of the participating hospitals in the area served by the Professional Standards Review Organization.

(e) If an alternate PSRO is designed from outside the geographical area of the undesignated PSRO, it should recruit local physicians to do review within the undesignated PSRO area.

(f) While profit-making organizations might be eligible to become alternate PSROs, no profit could be realized from PSRO review activities.

(4) Maintain an Ad-Hoc Committee until adequate replacement is available.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Dr. Bosley moved to amend Recommendation #1 by inserting the words "principal concern of" before "PSRO" and deleting the word "interest" after "PSRO." This amendment was approved by the House, and this section of the report was approved as amended.

(3) REPORT OF THE EMERGENCY MEDICAL SERVICE COMMITTEE

The committee reviewed and discussed the report and suggested that the interested groups involved in emergency medical service meet and survey their mutual problems.

Recommendation:

Your Reference Committee recommends that the Report of the Emergency Medical Service Committee be accepted and suggested that after the proposed meeting of the emergency medical service groups, that the Nebraska Medical Association be used as a clearinghouse for these various activities.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF THE CANCER COMMITTEE REPORT OF THE POLICY COMMITTEE, ITEM 2

Your Reference Committee commends the Cancer Committee for its efforts to provide testimony at the Nebraska legislative hearing on October 28, 1977, on the subject of laetrile.

The committee further discussed the need to provide a committee prepared to advise the Legislature on problems concerning laetrile or other controversial drugs.

Recommendation:

It is suggested to the President that he provide a legislative advisory committee on controversial drugs.

MR. SPEAKER, I MOVE THE ADOPTION OF

THIS SECTION OF OUR REPORT. This was seconded. Dr. Wilson moved to amend the second paragraph of the Reference Committee report by placing a comma after the word "laetrile," delete the word "other" substituting the word "any" and after "controversial" add the following words "substances or." This would then read: "The committee further discussed the need to provide a committee prepared to advise the Legislature on problems concerning laetrile, or any controversial substances or drugs." This was approved by the House.

Dr. Dunlap moved to amend the Recommendation by inserting the words "if requested by the Legislature" after the word "provide," and adding the words "and/or substances." after the word "drugs." This would then read: "It is suggested to the President that he provide, if requested by the Legislature, a legislative advisory committee on controversial drugs and/or substances." This was approved by the House.

This section of the Reference Committee was approved as amended.

(5) REPORT OF THE ALLIED PROFESSIONS COMMITTEE

REPORT OF THE POLICY COMMITTEE, ITEM 6

The Report of the Allied Professions Committee and the Policy Committee, Item 6, were noted.

Recommendation:

Your Reference Committee recommends that physician's assistants not be granted membership at this time.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #3, AS A WHOLE AS AMENDED. This was approved by the House.

Respectfully submitted,
Dr. John D. Coe, Omaha,
Chairman
Dr. R. R. Andersen, Nehawka
Dr. Thomas Wallace, Gordon

Reference Committee #4

Reference Committee #4 considered four reports and two resolutions. Your Reference Committee submits the following report and recommendations.

(1) REPORT OF THE EDITOR OF THE NEBRASKA MEDICAL JOURNAL

The Report of the Editor of the Nebraska Medical Journal was reviewed. It was especially noted that the Nebraska Medical Journal was entered in the Sandoz Medical Journalism competition, and Dr. Frank Cole had just received a plaque of commendation from the Sandoz Company as first prize for medical journalism.

Recommendation:

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE AD-HOC COMMITTEE ON FEDERAL LEGISLATION

The Report of the Ad-Hoc Committee on Federal Legislation was reviewed and discussed at length. The second section of this report reiterates the Nebraska Medical Association's position on National Health Insurance. It is recommended that the Association's

present stand on National Health Insurance be reaffirmed, and that the Nebraska Medical Association is opposed to the AMA's position.

Section three of the report was also discussed. It is recommended the Nebraska Medical Association be opposed to HR 2504 and S 708, to establish unsupervised rural health clinics.

Recommendation:

Your Reference Committee recommends acceptance of the Report of the Ad-Hoc Committee on Federal Legislation and commends Dr. Jerald R. Schenken, Chairman, for his diligent discussion and monitoring of federal legislative programs.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE MEDICAL SERVICE COMMITTEE

The Medical Service Committee Report was reviewed.

While LB 43, relating to hospital financial reporting, in its original form, was not acceptable to the NMA, the bill was modified to the point where the Medical Association did lend its passive support. The Hospital Association opposed this legislation. The bill was killed in the Legislature.

Your Reference Committee discussed the enactment of LB 103, which permits drug substitution. The drug substitution bill had much popular support, and your Reference Committee commends Dr. Shapiro and his committee for their efforts to make the bill as innocuous as possible. Your Reference Committee recommends that no further action be taken at this time.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) RESOLUTION #1 — (GREATER OMAHA MEDICAL SOCIETY) — COMMENDATION FOR MALPRACTICE EFFORTS

Resolution #1 reiterates the opinion of your Reference Committee, as well as that of the Greater Omaha Medical Society, and reads as follows:

RESOLVED, that the Nebraska Medical Association commend the Officers, Staff, Malpractice 5 Committee and their subcommittees for their untiring efforts in bringing the Malpractice Bill LB 434 to fruition.

Recommendation:

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Dr. Dunlap moved to amend this resolution by inserting the words "together with the NMA legal counsel" after the word "subcommittees." This amendment was approved, and this section was approved as amended.

(6) REPORT OF THE POLICY COMMITTEE, ITEMS 3, 5, 7 and 8

Item 3 — Your Reference Committee accepts the recommendation of the Policy Committee. It was pointed out to the Reference Committee, however, that medical students and residents under guidance of the medical school, which is associated with the Nebraska Medical Association, have been employed by the Omaha Medical Foundation and its medical clinics. Your Reference Committee disapproves of this activity.

Item 5 — Item 5 of the Report of the Policy Committee was considered under the Ad-Hoc Committee on Federal Legislation.

Item 7 — Item 7 of the Report of the Policy Committee was discussed by our President, Dr. Arnold W. Lempka, in his report to the House of Delegates during the first session of this meeting.

Item 8 — Item 8 of the Report of the Policy Committee referred to a communication from Nebraska hearing aid dealers. This was referred to the Nebraska Academy of Otolaryngology.

Recommendation:

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(7) RESOLUTION #4 — (GREATER OMAHA MEDICAL SOCIETY) — NATIONAL HEALTH INSURANCE

Resolution #4 was reviewed and read as follows:

WHEREAS, the AMA sponsored the re-introduction of its National Health Insurance Bill AR 6224 into the 95th Congress as S 218; and

WHEREAS, the reasons for re-introduction brought out at the 1976 Annual Session of the AMA were based upon, (1) political expediency because the AMA had to be "for" something, and (2) the AMA needed an NHI bill to insure a "seat at the conference table;" and

WHEREAS, neither of these reasons is valid when weighed against the evils of a compulsory National Health Insurance; therefore be it

RESOLVED, that the Nebraska Medical Association re-affirm its opposition to the AMA sponsored National Health Insurance bill.

Recommendation:

Your Reference Committee recommends adoption of this resolution.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #4 AS A WHOLE AS AMENDED. This was approved by the House.

Respectfully submitted,
Dr. Wm. J. Chleborad, Fremont,
Chairman
Dr. Howard A. Dinsdale, Lincoln
Dr. Alvin A. Armstrong, Scottsbluff

Reference Committee #5

Reference Committee #5 considered seven reports and one resolution. Your Reference Committee submits the following report and recommendations.

(1) REPORT OF THE CREIGHTON UNIVERSITY SCHOOL OF MEDICINE

Recommendation:

Your Reference Committee recommends acceptance of this report for information and commends the University on its 100-year birthday.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE UNIVERSITY OF NEBRASKA
MEDICAL CENTER

Recommendation:

Your Reference Committee recommends the adoption of this report.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE UNIVERSITY OF NEBRASKA
COLLEGE OF MEDICINE

Your Reference Committee recommends the acceptance of this report with a comment that perhaps the word "patient" could be substituted for the word "tertiary" in Goal #5.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF THE ADVISORY TO THE AUXILIARY COMMITTEE

Recommendation:

Your Reference Committee recommends acceptance of this report and commends the Auxiliary for its continued work with the Health Galleries project and wishes them success.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) REPORT OF THE MEDICAL EDUCATION COMMITTEE

There was considerable discussion of this report and an understanding of the committee's problems.

Recommendation:

Your Reference Committee recommends changes in the proposed By-Laws for the Council of State Committees of CME. Under Article III — Membership, the places on the Council should be doctors of medicine with voting rights. A considerable amount of information was obtained from the report and also from those Medical Education Committee members present at the session.

The Delegates should remember that the Association's Medical Education Committee surveys and accredits institutions and organizations to provide Category I programs, while the Scientific Sessions Committee is an accredited body (having been surveyed and accredited by the Medical Education Committee), and its programs now carry Category I credit. The committee may also co-sponsor programs, and these programs then carry Category I credit. Local hospitals and medical staffs are urged to contact the Scientific Sessions Committee about co-sponsorship of programs.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Dr. Francis indicated there was a previous action of the House directing the Medical Education Committee to report at this session as to its recommendation as to whether or not the membership should meet any continuing education requirements, and there was no mention of this in their report. Dr. Francis moved that the Medical Education Committee be re-directed to report at the next meeting of the House of Delegates a policy for the members of the NMA regarding continuing medical education. This motion was approved, and this section of the Reference Committee report was approved as amended.

(6) REPORT OF THE SCIENTIFIC SESSIONS COMMITTEE

Recommendation:

Your Reference Committee recommends acceptance of this report, with the addition of this language to #2 of the "Guidelines for the Issuance of AMA Category I Credit:" "Representatives of the Scientific Sessions Committee must meet with those organizations requesting co-sponsorship of a program during the planning or development phase of the program."

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(7) REPORT OF THE POLICY COMMITTEE, ITEMS 10 and 11

Recommendation:

Your Reference Committee recommends acceptance of Item 10 as stated, hoping the problems of both the state and federal legislation can be voiced and recommendations made by a joint approach.

Item 11 was accepted for information as it pertained to the financial problems of the University of Nebraska College of Medicine.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(8) RESOLUTION #2 — (GREATER OMAHA MEDICAL SOCIETY) — COST CONTAINMENT COURSE

There was considerable discussion of this resolution, and it was felt the resolution was non-committal and inconclusive. The resolution read as follows:

RESOLVED, that the Medical Education Committee undertake a study as to the feasibility of adding a "cost containment" course to the graduate and undergraduate curriculum in both medical schools.

Your Reference Committee wishes to enter a substitute resolution as follows:

WHEREAS, the cost of medical care is of concern to the medical profession and the public in general, and

WHEREAS, there are many reasons and forces acting upon medical costs; therefore be it

RESOLVED, that an appropriate committee of the Nebraska Medical Association study the forces acting upon medical costs.

Recommendation:

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Dr. Cornelius called attention of the House to the need for NMA consideration of a cost containment committee. He said by establishing a cost containment committee, the public will know that we are interested in this. We can study the problem and make recommendations if there are ways in which we can participate, ways in which the public can participate and ways in which the medical schools can participate in an effort to defuse the staggering costs of medical care.

Dr. Cornelius said the citizens of Nebraska needed to know that we are interested in cost containment. He said there is a story in the cost of medical care that needs to be brought out. At the AMA meeting, the Secretary of HEW said that 70% of the cost of medical care resulted from the activities of the physician.

Perhaps we are talking about prescription drugs and some of those things, but he thought there were a number of other aspects in cost containment to which we needed to address ourselves, and as a profession, we need to look at those things over which we do have some input and also point out to the public those portions of medical care or health care cost that are not in any way related to the activity of the physician.

Dr. Cornelius moved to amend the RESOLVED in the resolution offered by the Reference Committee to read as follows: "RESOLVED, that an ad-hoc committee on cost containment be immediately appointed by the President of the NMA." This was seconded and following discussion, this amendment was approved by the House. This section of the Reference Committee report was approved as amended.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #5, AS A WHOLE AS AMENDED. This was approved by the House.

Respectfully submitted,
Dr. James G. Carlson, Verdigre,
Chairman
Dr. Wm. L. Rumbolz, Omaha
Dr. Kenton L. Shaffer, Kearney

Reference Committee #6

Your Reference Committee #6 considered one report and the proposed Articles and By-Laws, and submit the following report and recommendations.

(1) PROPOSED ARTICLES AND BY-LAWS

The Proposed Articles and By-Laws submitted by the Constitution and By-Laws Committee were extensively reviewed and changes suggested by the Board of Councilors and errors identified on the errata sheet were considered and incorporated where appropriate. The following additions, deletions and/or modifications are recommended as follows.

Recommendations:

(1) Page 11, Section 7: Insert period after word "impaired." Delete phrase "nor shall an appeal which is pending prevent carrying out the penalty imposed by the component society."

(2) Page 18, Chapter VI, Section 1: In line 4, after the word "shall," delete rest of the paragraph and insert "cause the table of apportionment to be revised so as to provide that the outstate representation shall exceed 55%."

(3) Page 20, Section 1, Item (4): Delete words "Annual Session" and insert "Annual and Interim Sessions."

(4) Page 23, Chapter VII, Section 6: Delete words "Thirty five" and insert "Forty-six percent of the"

(5) Page 23, Chapter VII, Section 7: Delete "Business enacted in executive meetings shall be recorded and reported in substance in open meeting, but shall not be published unless so ordered by the House of Delegates." (Parenthetically, we should like to state that executive meetings may be conducted according to Sturgis Parliamentary Procedure as provided in Chapter XV of these by-laws.)

(6) Page 25, Chapter VIII: Add NEW Section 4, (succeeding Sections shall be appropriately renumbered) "The term of the office of President-Elect shall be for one year and the incumbent shall automatically succeed to the office of President for a term of one year or until such time as a successor is installed."

(7) Page 25, Section 4 (would be NEW Section 5): Change to read "The terms of the Speaker and Vice Speaker shall be for three years and shall be staggered."

(8) Page 26, Chapter VIII: In renumbered Section 9, delete "A nominee for President-Elect must have been a member of the Association for at least 10 years preceding his election."

(9) Page 29, Section 6: In line 15, change "Councilors" to "Directors."

(10) Page 32, Chapter X, Section 1: Add the following as the first paragraph of this Section, "The Board of Directors shall be composed of the President, President-Elect, Immediate Past President, Secretary-Treasurer and three members elected at large. The Speaker, Vice-Speaker of the House of Delegates and the Chairman of the Board of Councilors shall be ex-officio members of the Board of Directors without the right to vote."

(11) Page 32, Chapter X, Section 1: In the newly added paragraph described above, your Reference Committee recommends the change from "two" to "three" members elected at large so as to create an odd numbered voting membership for the Board of Directors.

(12) Page 35, Chapter XI, Section 1: In line 9, delete word "precise" and insert "initial."

(13) Page 36, Chapter XI, Section 4, Paragraph (d): In line 13, delete words "Executive Committee of the," place period after word "Directors," and delete words "or by the Board of Directors."

(14) Page 36, Chapter XI, Section 4, Paragraph (e): In line 3, place period after word "completed" and delete the rest of paragraph (e), adding the following: "If the investigator and Chairman agree that the complaint is frivolous and without any merit, the Chairman may dismiss the complaint without further action and all concerned parties shall be so notified."

(15) Page 36, Chapter XI, Section 4, Paragraph (f): Delete in toto, add instead: "If the complaint is deemed to have merit the Chairman of the Board of Councilors shall convene a hearing before the Board of Councilors giving due notice to all parties involved. The investigator shall report the result of his investigation and his conclusions in writing to such convened meeting. If the person initiating the complaint or the investigator is a member of the Board of Councilors, he shall not vote in determining the Boards action."

(16) Page 39, Chapter XI, Section 4, Paragraph (k): In line 6, delete "regular" and insert "by registered or certified."

(17) Page 38, Chapter XI, Section 4: Renumber this Section 5.

(18) Page 39: Create a NEW Chapter XII — COUNCIL ON PROFESSIONAL ETHICS. The wording for this Chapter shall be the three paragraphs designated as old Section 5, page 39, Section 5 to be passed over at this time so as to maintain your continuity on thought.

(19) Page 39, Chapter XI, Section 6: Change the word "Chairman" to "Speaker" in the last part of this Section. The recommended addition of a sentence by the Board of Councilors report is redundant as the Chairman of the Board of Councilors is designated an ex-officio member of the Board of Directors under Chapter X, Section 1.

(20) Chapter XII: Renumber subsequent Chapters.

(21) Page 39, Chapter XII — COUNCIL ON PROFESSIONAL ETHICS, Section 1: The entirety of Section 5 on page 39, with the following changes: In line 2, change the second sentence to: "They shall be nominated by the president of the NMA and shall be elected by the House of Delegates for a term of five years." In line 9, change "with full" to "without." (This change was a result of legal counsel so as to avoid conflict of interest.)

(22) Page 39, Chapter XII — COUNCIL ON PROFESSIONAL ETHICS, Section 2: The paragraph, "The Council on Professional Ethics shall act as the appellate . . ."

(23) Page 40, Renumbered Chapter XIII, Section 2: In line 4, delete "Constitution" and insert "Articles."

(24) Page 42, Chapter XIII, Section 2: Pages 41 through 47, your Reference Committee #6 recommends that the descriptions and responsibilities of each Commission shall immediately follow the named Commission.

(25) Page 42, Chapter XIII, Section 2, Paragraph (b): In line 2, delete "Constitution" and insert "Articles." (errata)

(26) Page 48, Renumbered Chapter XIV, Section 1, 4th Paragraph: Add "of Directors" after the word "Board." (See page 33, item 2. If they so issue only they may remove) After the word "hearing" add "by the Board of Councilors." (Page 35, Chapter XI, Section 3, relates to Board of Councilors judiciary activity)

(27) Page 48, Chapter XIV, Section 1, 4th paragraph: Change "Chapter IX" to "Chapter XI."

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. This motion was submitted with the understanding that the proposal will be resubmitted for final approval at the 1978 Annual Session.

A motion was made to amend Recommendation #2, by substituting the wording in the existing By-Laws concerning delegate representation for those in the proposed By-Laws. This was seconded, but the motion lost.

Dr. Cornelius moved to amend Recommendation #14, by deleting the word "any" in the new added language. This amendment was approved by the House.

After discussion, this section of the Reference Committee report was adopted as amended.

(2) REPORT OF THE CONSTITUTION AND BY-LAWS COMMITTEE

Your Reference Committee further considered the Report of the Constitution and By-Laws Committee, paragraph 3. Your Reference Committee heard strong opinion, pro and con, regarding the recommendation in paragraph 3 of this report having to do with Life

Membership. Inasmuch as these differences could not be resolved, the Reference Committee #6 recommends deferral of action of this recommendation.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Following considerable discussion, the recommendation of the Reference Committee was not approved by the House.

Dr. Dean moved that the present By-Laws be amended to conform with the exact wording of the proposed By-Laws and that this take effect immediately. This was seconded and following discussion, Dr. Dean modified this motion to be effective as of January 1, 1978. This motion was approved by the House and this section of the Reference Committee report was adopted as amended.

MR. SPEAKER, I MOVE THE ADOPTION OF THE ENTIRE REPORT OF REFERENCE COMMITTEE #6, AS A WHOLE AS AMENDED. This was approved by the House.

Respectfully submitted,
Dr. Richard Cottingham, McCook,
Chairman
Dr. Gordon Francis, Grand Island
Dr. F. F. Paustian, Omaha

The Chair called for any further business and Dr. Rumbolz said a proposed formation of a mutual liability insurance company was reported at the May session. He said this company had been formed under the name of Medical Liability Mutual. Dr. Rumbolz said he felt the Insurance Committee of the NMA should investigate this new company and distribute their findings to the society as a whole. He moved that the Insurance Committee of the NMA be instructed to meet and investigate Medical Liability Mutual as an alternative malpractice carrier for Nebraska's physicians, and further that a report from the Insurance Committee be mailed to the membership in a regular newsletter before the first of December. This motion was approved by the House.

Dr. Wilson had the following suggestions:

(1) Prior to placing a report in the Handbook, a preliminary draft of the report be sent to all members of that committee for review and suggestions, recommendations, etc. as to any changes in the report.

(2) When the Chairman of a committee is not a member of the House of Delegates, he should be invited to attend sessions of the House and the Reference Committee.

(3) The Speaker and Vice Speaker should notify the Chairmen of Reference Committees in advance of the session of the materials in the Handbook which will be assigned to their Reference Committee.

There being no further business, the meeting was adjourned.

Nebraska Medical Association

By-Laws

THE FOLLOWING IS THE PROPOSED ARTICLES AND BY-LAWS AS APPROVED BY THE HOUSE OF DELEGATES AND SCHEDULED FOR FINAL VOTE AT THE 1978 ANNUAL SESSION.

ARTICLES OF INCORPORATION NEBRASKA MEDICAL ASSOCIATION

ARTICLE I NAME

The name and title of this organization is NEBRASKA MEDICAL ASSOCIATION.

ARTICLE II PURPOSES

The purposes of this Association are as follows:

1. To advance the science and art of medicine.
2. To elevate the standard of medical education.
3. To improve public health.
4. To disseminate to its members and others, facts and opinions relating to medical knowledge, treatment and procedures.
5. To provide a vehicle for fellowship among those engaged in the practice of medicine in the State of Nebraska.
6. To provide for an association of Nebraska physicians to cooperate with the American Medical Association in appropriate areas.
7. To monitor proposed legislation and to provide facts and opinions to state and government officials on matters pertaining to public health and to the interests of its members.

ARTICLE III REGISTERED OFFICE

The registered office of the corporation shall be 1902 First National Bank Building, 13th and M Streets, Lincoln, Nebraska 68508.

ARTICLE IV RESIDENT AGENT

The name of the registered agent of the corporation at such address is Kenneth Neff.

ARTICLE V DURATION

The period of duration of the corporation shall be perpetual.

ARTICLE VI BOARD OF DIRECTORS

The corporation shall be governed by a Board of Directors which presently consists of six (6) individuals as follows:

Name	Address
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The number of directors may be changed from time to time by appropriate provision in the Bylaws. The Directors shall be elected by the House of Delegates, but in event of a vacancy, the vacancy may be filled for the unexpired term by the Board of Directors.

ARTICLE VII COMPONENT SOCIETIES

Section 1. Component societies shall consist of those county and district medical societies, Nebraska House Officers associations and medical student associations which now or may hereafter hold charters from this Association.

Section 2. A county having five or more eligible physicians may form a component society. Only one component society shall be chartered in any one county of the state.

When fewer than five eligible physicians reside in a county, they may join a component society in a neighboring county.

A charter may be granted to a component society which may include two or more counties when in the judgment of the House of Delegates, such combination is to the best interests of the Association.

ARTICLE VIII MEMBERSHIP

Section 1. Membership in the Nebraska Medical Association shall be attained only by those who are active members of a component society of the Association as provided in the Bylaws.

Section 2. Every reputable physician licensed in the State of Nebraska and holding the degree of Doctor of Medicine or Bachelor of Medicine and who practices medicine not founded on or adhering to exclusive dogma or sectarianism shall be eligible for membership in a component society.

Section 3. Members of the Association shall be classified as (1) active, (2) house officer, (3) honorary, (4) life, (5) student.

ARTICLE IX HOUSE OF DELEGATES

Section 1. The House of Delegates shall be the legislative body of the Association.

Section 2. Delegates shall be members of and elected by component societies. The number of delegates from each society shall be fixed by the Bylaws. Officers of the Association and past presidents residing in this state shall be ex-officio members of the House of Delegates without vote.

Section 3. The speaker or vice speaker shall preside at all meetings of the House of Delegates.

Section 4. The House of Delegates shall be the final judge as to the qualification of its members.

ARTICLE X BOARD OF COUNCILORS

The House of Delegates shall cause the State of Nebraska to be divided into councilor districts. Councilors shall be elected in the manner provided in the Bylaws. The councilors so elected shall constitute the Board of Councilors which shall be vested with the judicial powers of the Association which shall include the power to expel a member or take such other disciplinary action as it deems appropriate. It shall have such other powers and duties as may be delegated to it in the Bylaws or by the House of Delegates or by the Board of Directors. One member of the Board of Councilors shall be designated as chairman. The manner of selecting the chairman of said Board, the procedures to be followed by the Board in disciplinary proceedings and such other rules and regulations as are deemed appropriate shall be provided by the Bylaws.

ARTICLE XI REGULAR AND SPECIAL SESSIONS

Section 1. The Association shall hold an annual session for members and guests.

Section 2. The annual session shall be held during the Spring months of each year, preferably the first week in May.

Section 3. The method for determining the time and place of the annual sessions shall be provided in the Bylaws.

Section 4. The Association shall hold an interim session during the Fall months following the annual session and may hold special sessions as provided in the Bylaws.

ARTICLE XII OFFICERS

The officers, their terms of office, the manner of their selection, the qualifications for such office and the duties of such officers shall be provided in the Bylaws.

ARTICLE XIII SEAL

The Association shall have a seal which may be altered or changed by order of the Board of Directors with the approval of the House of Delegates.

ARTICLE XIV REFERENDUM

The acting members of the House of Delegates assembled in session by a two-thirds vote of those present may order a referendum on any question pending before the House of Delegates and submit the question to the active members of the Association for ratification or rejection. Such referendum shall be conducted by mail in the manner prescribed by the House of Delegates. A majority of those voting shall decide the issue, providing that not less than 51 percent of the active membership of the Association shall have voted on the proposition.

ARTICLE XV RESTRICTIONS ON RIGHTS OF MEMBERS OR INDIVIDUALS

The Corporation shall not have or exercise any power nor engage in any activity that would prevent the Corporation from qualifying and continuing to qualify as a corporation described in Section 501(c)(6) of the Internal Revenue Code as now or hereafter existing and no part of the assets or net earnings of the corporation shall ever inure to the benefit of any member or private shareholder or individual.

ARTICLE XVI AMENDMENTS

These Articles may be amended in the following manner:

The Board of Directors shall first consider the proposed amendment and adopt a resolution setting forth the proposed amendment and directing that it be submitted to a vote at a regular session of the House of Delegates or at a special meeting of the House of Delegates called for that purpose. Copy of such resolution shall be sent to each component society at least 60 days prior to the opening of the meeting of the House of Delegates at which the proposed amendment will be considered. Written or printed notice setting forth the proposed amendment or a summary of the changes to be effected thereby shall be given to each member of the House of Delegates entitled to vote at such meeting not less than ten nor more than 50 days before the date of the meeting. The proposed amend-

ments shall be adopted upon receiving at least two-thirds of the votes of the members present and assembled in session at such meeting.

BY-LAWS NEBRASKA MEDICAL ASSOCIATION

CHAPTER I — MEMBERSHIP

SECTION 1. A member of this Association must be an active member of one of the component societies. When he is certified to the Secretary-Treasurer of the Association as a member of a component society and classified as to the type of membership by the secretary of the component society, his name shall be included in the official roster of the Association, and he shall be entitled to all privileges of his class of membership.

SECTION 2. To maintain active membership in this Association, all members must pay dues and assessments as prescribed in the By-Laws of the Nebraska Medical Association.

A graduate of a foreign medical school who has fulfilled all of the requirements for and is licensed to practice medicine and surgery in the State of Nebraska may become an active member of this Association through membership in a component society. For the purpose of this by-law, a foreign medical school shall be designated as a medical school located outside the boundaries of the United States of America.

Eligible physicians in the service of the Federal Government, who reside in Nebraska, may become active members of this Association through membership in a component society.

SECTION 3. House Officer membership may be issued through a component society to House Officers and fellows in Nebraska who qualify under the licensure laws of this state, who have appointments in recognized hospitals in Nebraska and who pay dues as prescribed by the House of Delegates. Such membership shall prevail only for the period of such graduate medical training. Such membership shall entitle the holder thereof to all membership benefits and responsibilities.

SECTION 4. Honorary membership may be bestowed on any member or individual for outstanding achievement in medicine or allied humanitarian service by a two-thirds vote of the Board of Directors and with the approval of the House of Delegates.

Honorary membership shall be accompanied by a suitable certificate.

Honorary membership shall not affect the rights of an active member and does not relieve him of financial obligation and payment of dues.

Non-members of this Association who become Honorary members shall not pay dues nor enjoy the privileges of this Association.

SECTION 5. Life membership may be granted under the following circumstances:

a. To any member in good standing who has been an active member of the association for at least five years and who has been in practice for 45 years.

b. To any member in good standing who has been an active member of the Association for at least five years, who has been in practice for 40 years and who has retired from the practice of medicine and related activities as determined by the Board of Councilors.

c. To any member in good standing who, because of

illness, disability or other good cause as determined by the Board of Councilors, is unable to continue the practice of medicine and in the opinion of the Board of Councilors should be granted life membership.

Determination of all fact questions concerning eligibility for life membership shall be made by the Board of Councilors.

A Life Member shall be exempt from payment of dues; may vote and hold office; may participate and attend regular sessions; and shall receive all publications.

Life Membership in any case, except those who have practiced over 45 years, shall continue only as long as the member is retired from active practice and its related activities and if a Life Member who has practiced less than 45 years returns to the active practice or its related activities, his Life Membership shall terminate upon his resumption of such practice of activities.

SECTION 6. Student membership shall be granted to all regularly enrolled medical students of the University of Nebraska College of Medicine and the Creighton University School of Medicine upon direct application to the Nebraska Medical Association, or to the component student society, and payment of dues as prescribed from time to time by the House of Delegates. Student members will be eligible to attend all meetings of the Nebraska Medical Association and shall also be entitled to receive the Nebraska Medical Journal and serve as members of standing committees, but they shall not be entitled to hold office in the state association.

SECTION 7. A member not in good standing, expelled or suspended from his component society, shall have like status in this Association. The right of appeal to the Council on Professional Ethics shall not be impaired.

SECTION 8. Wherever in the following Chapters and Sections the unqualified term 'members' is used the same shall refer equally to all classes of members of this Association.

SECTION 9. With approval of the House of Delegates the Nebraska Medical Association may award a Certificate of Distinguished Service to a member in good standing, provided the nomination for such award has been made by his component society or by a two-thirds vote of the Board of Directors.

SECTION 10. Upon recommendation for the honor by his component society, each member of the Nebraska Medical Association, who has been engaged in the practice of medicine for fifty years, shall be presented a specially-designed award, which shall be in recognition of the completion of fifty years in medical practice. Such awards shall be presented each year at the Annual Session of the Nebraska Medical Association. In determining the period for which the award is made, the date of graduation from medical school shall be considered to be the beginning.

The names of the men who are qualified to be considered for the awarding of this honor shall be selected by the Executive Secretary and the list of these names sent to each appropriate county secretary prior to each fall session. If no reply is received to the contrary, all names on this list shall be presented to the House of Delegates for approval at the fall session.

CHAPTER II — ASSESSMENTS AND EXPENDITURES

SECTION 1. The calendar year shall be the fiscal year of the Association.

SECTION 2. An annual assessment shall be levied against each active member of a component society, which shall be annual dues for membership in this Association. Dues whenever paid, shall be for the current calendar year. The dues of a House Officer member and a student member shall be prescribed by the House of Delegates.

Any physician who becomes a new member of the component society after July 1st, shall be obligated to pay one-half the annual assessment for the current calendar year.

The Board of Directors, with prior approval or authorization of the House of Delegates, may increase or decrease Association dues, which change will take effect at the beginning of the next fiscal year.

The secretary of each component society shall forward to the Secretary-Treasurer of this Association on or before the last day of February of each year, its state dues and membership assessments, together with a roster of officers, delegates and alternates, members of the component society, and a list of physicians who have moved into the area since the last report, together with the names of all who have moved from the area or have died.

Any component society failing to make the required reports or to pay its assessment on or before the last day of February of each year, shall be held suspended, and none of its members or delegates shall be permitted to participate in any of the activities of the Association, nor to receive the Journal until such requirements have been met.

SECTION 3. All motions or resolutions regarding the appropriation of money shall specify a definite amount and the purpose for which it is to be used. All appropriations must be approved by the Board of Directors and the House of Delegates.

Except as herein expressly authorized, money expended by a member or a component society for Association activities shall not be repaid unless such repayment has been authorized by the Board of Directors of the Association.

On submission of an itemized statement, incurred expenses shall be repaid to the following officers and representatives of the Nebraska Medical Association:

- (1) Officially elected delegates and their alternates to the American Medical Association and the North Central Medical Conference.
- (2) Representatives to other meetings deemed important by the Board of Directors.
- (3) Editor and Secretary-Treasurer while attending the meetings of the House of Delegates of the American Medical Association.

CHAPTER III — ETHICS AND DISCIPLINE

SECTION 1. The Principles of Medical Ethics of the American Medical Association shall be the rule of conduct for members of this Association, and shall guide the Board of Councilors and the Council on Professional Ethics in all decisions relating to questions of ethics.

SECTION 2. This Association declares that it is the right and duty of an individual physician to determine

which persons, institutions and organizations shall have the right to gratuitous services.

CHAPTER IV — ANNUAL SESSION

SECTION 1. Scientific meetings of the Annual Session shall be devoted to the scientific work of the members of this Association, to the inauguration of the President, to the annual address and awarding of a certificate of service to the retiring President, to special addresses by invitation, and to such matters of general interest to the Association as may have been placed on the program by order of the House of Delegates, the Board of Councilors, or the Scientific Sessions Committee.

The order of exercises, papers, addresses and discussions at a scientific meeting shall be fixed by the Scientific Sessions Committee.

SECTION 2. Each member of this Association in attendance at an Annual Session shall register and wear a badge of identification, which shall entitle him to the rights and privileges of his class of membership and to take part in the proceedings of the Annual Session.

Non-member physicians in attendance at an Annual Session shall pay a registration fee as determined by the Board of Directors, except residents and guests who are members in good standing of other state associations.

SECTION 3. All resolutions or memorials to be issued in the name of the Association must be referred to the House of Delegates not less than twenty-four hours prior to the time fixed for sine die adjournment of the House of Delegates and must be approved by the House before being issued or becoming effective.

SECTION 4. All papers read before a scientific meeting or section shall become the exclusive property of this Association. The cost of publishing such paper shall be borne by the Association. Inclusion of illustrations without cost to the author shall be at the discretion of the Board of Directors or the Editor of the Journal. Permission to publish such papers in journals other than the Journal of the Association may be granted by the Board of Directors.

CHAPTER V — MEETINGS

SECTION 1. A special session of the House of Delegates may be called (1) by a two-thirds majority vote of the House in session, (2) by order of the Board of Directors, (3) by petition to the President of one-third of the members of the House of Delegates, or (4) by the President.

Notice of a special session of the House of Delegates shall be mailed to each member of the House at least fifteen days prior to convening such session, and shall state the time, place and purpose. No business other than that outlined in the official notice may be transacted at any special session.

SECTION 2. Meetings of the Board of Councilors may be called (1) by the President, (2) by the Chairman of the Board of Councilors, or (3) by petition of seven Councilors to the Chairman.

SECTION 3. Meetings of the Board of Directors may be called by the President or by petition of a majority of the voting members of the Board of Directors.

CHAPTER VI —

DELEGATES TO THE HOUSE OF DELEGATES

SECTION 1. Delegates shall be members of and elected by component societies, or group of societies so

organized, having a combined membership of five or more. Each component society, or group of societies so organized, in good standing having five or more members of the component society and the Nebraska Medical Association shall be entitled to send to the House of Delegates each year one delegate for the first five active members who are in good standing on December 31 of the calendar year immediately preceding. Any component society without delegate representation because it had less than five members in good standing on December 31st of the preceding year, will become immediately eligible for representation in the next session of the House of Delegates upon obtaining an increase in membership to five or more. The society, or group of societies so organized will be entitled to delegates in accordance with the following:

No. of Members	Delegates
0-4	0
5-14	1
15-25	2
26-55	3
56-85	4
86-115	5
116-145	6
146-175	7
176-205	8
206-235	9
236-265	10
266-295	11
296-325	12
326-355	13
356-385	14
386-415	15
416-445	16
446-475	17
476-505	18
506-535	19
536-565	20
566-595	21
596-625	22
626-655	23
656-685	24

In the event the proportion of delegates from other than Lincoln (Lancaster County) and Omaha (Douglas County) is less than 55% of the total House of Delegates membership, the Board of Directors shall cause the table of apportionment to be revised so as to provide that the outstate representation shall exceed 55%.

Each delegate shall have a regularly elected alternate who shall represent his component society, or group of societies so organized, in the House of Delegates, when the delegate is unavailable for such service.

SECTION 2. A delegate or an alternate representing a component society, or group of societies so organized, shall have resided and practiced in Nebraska and shall have been an active member of a component society and the Nebraska Medical Association for at least two years immediately preceding his election.

Immediately following such election, the secretary of the component society, or group of societies so organized, shall certify the elected delegates and alternates to the Secretary-Treasurer of the Nebraska Medical Association.

SECTION 3. Delegates of the component society, or group of societies so organized, and their alternates shall be elected for a term of two years so rotated that one-half, as nearly as possible, shall be elected each year.

SECTION 4. During a session of the Association, an

accredited delegate or his regularly-elected alternate may serve at any meeting of the House of Delegates; if both the delegate and the alternate are available, the decision as to which one is to be seated at any meeting of the House shall be determined by the delegate.

Members of the House of Delegates shall be officially seated at any meeting when they have answered the prepared roll call.

SECTION 5. Each delegate shall be entitled to one vote. He shall represent the component society, or group of societies so organized, through which his active membership originated. Representation in the House shall not be accorded to a component society, or group of societies so organized, whose delegate or alternate is absent unless approved by the House of Delegates.

SECTION 6. Four student delegates shall be entitled to hold a voting membership in the House of Delegates. There will be two delegates from each school of medicine in Nebraska, comprised of students who have completed at least half of the prescribed medical school curriculum. Such individuals must be current dues-paying members.

SECTION 7. A minimum of four delegates representing the House Officer Staff Association shall be entitled to hold voting membership in the House of Delegates. No less than two of these delegates shall be elected from the Creighton University House Staff Association and no less than two of these delegates shall be elected from the House Officers Association of the University Medical Center. Provided further that if the membership of either House Staff Association exceeds 50 members, then such Association shall be entitled to one additional delegate for each 50 members or major fraction (50%) thereof. Such individuals must be current dues-paying members.

CHAPTER VII — HOUSE OF DELEGATES AND ITS DUTIES

SECTION 1. The House of Delegates shall foster the constitutional purposes of this Association. In pursuance of these duties, it shall:

(1) Elect

The President-Elect
The Secretary-Treasurer
Members-at-large of the Board of Directors
The Councilors
The Speaker and Vice-Speaker of the House of Delegates

Delegates to the American Medical Association, and their alternates, for terms of two years each but not to exceed five consecutive two year terms after May, 1978; provided, however, for good cause shown, the House of Delegates, upon recommendation of the Board of Directors, may elect to retain an AMA Delegate or Alternate on a year to year basis.

Delegates and their alternates for terms of two years each to represent the Association at meetings of other medical societies which in its judgment merit such recognition.

- (2) Appropriate money for budgetary purposes, and make special appropriations
- (3) Fix membership dues after considering recommendations made by the Board of Directors.
- (4) Select the city in which the Annual and Interim Sessions shall be held.
- (5) Have power to create commissions and special

committees from its own membership, from the general membership of the Association, or from the public at large.

- (6) Have power to create reference committees for the conduct of its business.

Subject to approval by the House of Delegates, the speaker of the House shall appoint the members of such committees. Recommendations from these committees shall be submitted to the House, and a majority vote of those present shall be necessary for adoption. Unless otherwise ordered by the House, the term of any reference committee shall expire automatically with sine die adjournment of the Annual Session, or of the special meeting of the House at which the committee was appointed.

- (7) Approve elections to honorary membership and resolutions and memorials issued in the name of the Association.

In addition to the foregoing duties, it may:

- (1) Call special sessions of the House of Delegates, as prescribed in Chapter V, Section 1.
- (2) Order a referendum on any question pending before the House of Delegates, as prescribed in Article XIV.
- (3) Specify that matters of general interest to the Association be scheduled on the scientific program.
- (4) Assign additional duties to the officers and create additional offices to fulfill functions it deems to be desirable.

SECTION 2. Chairmen of Commissions or committees who are non members of the House of Delegates may report to the House in person, and may participate in the discussion of matters pertaining to the work of their commission or committee but shall not have the right to vote.

SECTION 3. The House of Delegates shall meet twice yearly. One meeting shall be at the time and place of the Annual Session. It may meet in advance or remain in session after adjournment of a regular session, or on call of the Speaker. The meetings of the House shall not conflict with the scientific programs scheduled, unless unavoidable. Open meetings of the House of Delegates may be attended by all members of the Association who are in good standing.

The Fall Session of the House of Delegates shall be held during September or October of each year immediately following the Fall Session of the Board of Councilors, and not less than 60 days prior to the opening of the next following session.

Executive meetings may be attended only by members of the House of Delegates as defined in Article IX. Business to be transacted at executive meetings shall be designated by the House of Delegates, the Board of Councilors, or the Board of Directors.

SECTION 4. Except as otherwise provided in these By-Laws or ordered by a two-thirds vote of the House of Delegates, the following shall be the order of business of the House:

- (1) Call to Order by the Speaker of the House of Delegates
- (2) Roll Call
- (3) Reading of the Minutes
- (4) Report of the Board of Directors
- (5) Report of the Board of Councilors
- (6) Report of Officers

- (7) Reports of Commissions
- (8) Reports of Special Committees
- (9) Reports of Reference Committees
- (10) Unfinished Business
- (11) New Business

SECTION 5. New business shall not be introduced during the last meeting of the Annual Session of the House except by a two-thirds majority vote of the members of the House present on that day, and shall require a two-thirds vote for ratification.

SECTION 6. Forty-six percent of the delegates shall constitute a quorum for the transaction of business.

SECTION 7. Detailed minutes of all open meetings of the House of Delegates shall be recorded by the Secretary-Treasurer, and shall be published in the official journal.

SECTION 8. The impeachment of an officer which has been passed by a two-thirds majority vote of the Board of Councilors shall be presented in writing to the House of Delegates. The House of Delegates shall then determine its procedure for hearing and acting upon such charges. The parties involved shall be permitted to present evidence and witnesses in all impeachment proceedings. A two-thirds vote of the members of the House of Delegates present at the time of the vote shall be required to remove the officer from office.

SECTION 9. The House of Delegates shall divide the state by counties into twelve Councilor Districts, and each shall be represented by a resident Councilor. Apportionment of the counties in the State of Nebraska into Councilor Districts shall be as follows:

- No. 1 — Douglas, Sarpy
- No. 2 — Lancaster, Cass, Otoe
- No. 3 — Gage, Johnson, Nemaha, Pawnee, Richardson
- No. 4 — Knox, Cedar, Dixon, Dakota, Antelope, Pierce, Wayne, Thurston, Madison, Stanton, Cuming
- No. 5 — Burt, Washington, Dodge, Colfax, Platte, Boone, Nance, Merrick
- No. 6 — Saunders, Butler, Seward, Polk, York, Hamilton
- No. 7 — Clay, Fillmore, Saline, Nuckolls, Thayer, Jefferson
- No. 8 — Cherry, Keya Paha, Brown, Boyd, Rock, Holt, Sheridan
- No. 9 — Custer, Valley, Greeley, Sherman, Howard, Dawson, Buffalo, Hall, Grant, Hooker, Thomas, Blaine, Loup, Garfield, Wheeler
- No. 10 — Gosper, Phelps, Adams, Furnas, Harlan, Franklin, Webster, Kearney, Chase, Hayes, Frontier, Dundy, Hitchcock, Red Willow
- No. 11 — Lincoln, Perkins, Keith, McPherson, Deuel, Garden, Logan, Arthur
- No. 12 — Scotts Bluff, Banner, Box Butte, Morrill, Dawes, Sioux, Kimball, Cheyenne

Upon petition by two-thirds of the members in any county, the House of Delegates may transfer that county from one councilor district to another.

CHAPTER VIII — ELECTION OF OFFICERS AND DIRECTORS

SECTION 1. The House of Delegates on the first day of the Annual Session shall elect a Nominating Committee consisting of one delegate from each councilor district. This committee shall hold at least three previously-announced meetings of not less than one hour each — one on the first day and two on the second day of the Annual Session — for the purpose of receiving nominations for officers for the ensuing year. These meetings shall not conflict with the scientific meetings of the Annual Session. Any member of the

Association may appear before this committee and present nominations for any of the elective offices.

The Nominating Committee shall then prepare a ticket containing the name or names of candidates for each elective office, including at large members of the Board of Directors.

SECTION 2. The report of the Nominating Committee and the election of officers shall be the first order of business of the House of Delegates following the reading of the minutes at the final meeting of the House of Delegates on the last day of the Annual Session.

Any delegate may propose additional nominations for any or all elective offices including at large members of the Board of Directors from the floor of the House, but his nominating speech must not exceed two minutes.

SECTION 3. All elections shall be by secret ballot and a majority vote of the delegates present shall elect, except, that if there be more than two nominees and no majority be declared, the two nominees receiving the highest votes shall be declared the nominees and another ballot taken. If there is only one nomination for an office, election may be by acclamation.

SECTION 4. The term of the office of President-Elect shall be for one year and the incumbent shall automatically succeed to the office of President for a term of one year or until such time as a successor is installed.

SECTION 5. The terms of the Speaker and Vice Speaker shall be for three years and shall be staggered.

SECTION 6. Members of the Board of Directors may not hold two elective positions at the same time.

SECTION 7. The terms of the at large members of the Board of Directors shall be for three years and shall be staggered as determined by the House of Delegates. At large members shall be limited to two consecutive terms of three years. No member or ex officio member of the board shall serve for more than six consecutive years as a member of the Board.

SECTION 8. The term of the Secretary-Treasurer shall be for three years.

SECTION 9. Each nominee for any office must have been a member of the Association for at least three years immediately preceding his nomination.

CHAPTER IX — DUTIES OF OFFICERS AND EXECUTIVE SECRETARY

SECTION 1. In the pursuance of his duties, the President shall:

- (1) Make a report at the Annual Session at which his administration expires
- (2) Sign all charters and other documents authorized by the Board of Directors
- (3) Appoint all Commissions and committees not otherwise provided for, including all new committees that may be created during his term of office.
- (4) Fill all vacancies for unexpired terms on commissions and committees.
- (5) Be a member of the Board of Councilors
- (6) Be a member and chairman of the Board of Directors
- (7) Be a member of such other committees as the House of Delegates may designate
- (8) Be an ex-officio member of all commissions and committees, and of the House of Delegates, without the right to vote

- (9) Assist the Councilors in developing component societies, and perform such other duties as custom and parliamentary procedure may require
- (10) Advise the Executive Secretary on matters relating to the Science of medicine and to professional relations
- (11) Perform such other duties as shall be assigned to him by the Board of Directors.

In the further performance of his duties, he may:

- (1) Create special committees for any purpose, appointing the members and assigning them any powers and duties not in conflict with the Articles and By-Laws. The tenure of such appointees shall not exceed the tenure of office of the President making the appointments, unless continued by order of the House of Delegates
- (2) Call a special session of the House of Delegates and meetings of the Board of Councilors or the Board of Directors, as prescribed in Chapter V

SECTION 2. The President-Elect shall:

- (1) Familiarize himself with the duties which will devolve on him as President
- (2) Be a member of the Board of Councilors
- (3) Be a member of the Board of Directors
- (4) Be an ex-officio member of all commissions and committees, and of the House of Delegates, without the right to vote
- (5) Be a member of such other committees as the House of Delegates may hereafter designate
- (6) Perform such other duties as may be directed by the House of Delegates or by the Board of Directors
- (7) Appoint new members of all commissions and committees authorized in Chapter XII, Section 1 and 2. These appointments shall be for the next ensuing year commencing on the date he assumes the office of President.
- (8) Assume office of President in event of death, resignation, removal or disability of the President

SECTION 3. The Immediate Past President shall:

- (1) Be a member of the Board of Councilors
- (2) Be a member of the Board of Directors
- (3) Be an ex-officio member of the House of Delegates, without the right to vote
- (4) Be a member of such other commissions and committees as the House of Delegates or Board of Directors may hereafter designate
- (5) Perform such other duties as may be delegated to him by the Bylaws or by action of the Board of Directors

SECTION 4. The at large members of the Board of Directors shall:

- (1) Serve as members of the Board of Directors
- (2) Perform such duties as may be set forth in the Bylaws or may be delegated by the Board of Directors
- (3) Have no floor privileges in the House of Delegates unless also a duly elected delegate

SECTION 5. The Speaker of the House of Delegates shall:

- (1) Preside at all sessions of the House of Delegates
- (2) Appoint all reference committees with the approval of the House of Delegates
- (3) Perform such duties as custom and parliamentary procedure may require

- (4) Have the right to vote only in case of a tie
- (5) Be an ex-officio member of the Board of Directors and Board of Councilors, with the privilege of the floor, but without the right to vote
- (6) In the event the President-Elect shall assume the office of President, assume the office of President-Elect until the next Annual Session

SECTION 6. The Vice-Speaker shall:

- (1) Assume the duties of the Speaker during his absence or at his request
- (2) Assist the Speaker in the performance of his duties
- (3) Act in the capacity of Sergeant-at-Arms
- (4) Have the right to vote only when acting in the capacity of Speaker, and then only in case of a tie vote
- (5) In the event of death, resignation, removal or disability of the speaker, automatically succeed to that position for the unexpired term
- (6) Be an ex-officio member of the Board of Directors and Board of Councilors, and have the same rights and privileges as does the Speaker
- (7) In the event the Speaker of the House of Delegates assumes the office of President-Elect, assume the office of Speaker of the House of Delegates until the next Annual Session.

In the event of death, resignation, removal or disability of both the Speaker and Vice-Speaker, the Board of Directors shall appoint a Speaker for the current or next regular session, at which time a Speaker shall be elected by the House of Delegates. Such election will be the first order of business.

SECTION 7. The Secretary-Treasurer shall:

- (1) Be custodian of all money, securities and deeds belonging to the Association, and hold the same subject to the direction and disposition of the Board of Directors, except as prescribed in Chapter X
- (2) Make such periodic reports of his official transactions as may be required by the Board of Directors
- (3) Be bonded at the expense of the Association, in an amount designated by the Board of Directors
- (4) Assume the duties of the Executive Secretary, pending the appointment of another Executive Secretary, should the office of Executive Secretary be vacated
- (5) Be a member of the Board of Directors
- (6) Be a member of the Scientific Sessions Committee
- (7) Be an ex-officio member of all commissions and committees, and of the House of Delegates, without the right to vote
- (8) Attest the President's signature on all Charters and on other documents requiring attestation and signed by the President

In case of death, resignation, removal or disability of the Secretary-Treasurer, the Board of Directors shall select a member of the Association to fill such vacancy until a Secretary-Treasurer is chosen at the next ensuing session of the House of Delegates.

SECTION 8. The Executive Secretary shall:

- (1) Perform the duties usual in such an office and to the office of Secretary, except those specifically imposed on the Secretary-Treasurer by the By-Laws
- (2) Refer to the President all medical or professional questions
- (3) Act as general administrative officer and business

manager of the Association, subject to the advice and direction of the Board of Councilors and the Board of Directors

- (4) Be directly responsible to the Board of Directors
- (5) Be custodian of the official seal
- (6) Be custodian of all communications, papers, and records pertaining to the duties of his office, except those designated for the custody of others as provided in the By-Laws, or by order of the Board of Directors
- (7) Record, and promptly turn over to the Secretary-Treasurer, or to such other custodian as the Board of Directors may direct, all funds of the Association which may come into his possession
- (8) Be bonded at the expense of the Association, in such amount as the Board of Directors may require
- (9) Aid the Board of Councilors in the organization and guidance of the component societies and, so far as is practicable, visit each component society at least once annually
- (10) Supply the component societies with the necessary forms for conducting their official business with this Association
- (11) Charge and collect assessments against component societies
- (12) Keep a card index by counties of all physicians in Nebraska and render annually to the American Medical Association and to this Association a statistical report of the membership status
- (13) Be business manager of the official journal and manage all other publications of the Association, under the supervision of the Board of Directors, subject to provisions in Chapter XIV of these By-Laws
- (14) Perform such other duties and employ such assistants as the Board of Directors may direct

The salary of the Executive Secretary and the salaries of his assistants shall be fixed by the Board of Directors.

SECTION 9. Delegates to the American Medical Association shall:

- (1) Attend the annual and interim sessions, and any special sessions of the House of Delegates of the American Medical Association, and faithfully represent this Association and its official policies in said House of Delegates
- (2) Be ex-officio members of the House of Delegates of the Nebraska Medical Association, without the right to vote

SECTION 10. The House of Delegates and the Board of Directors may assign other and additional duties to the officers and to the Executive Secretary of the Association. Each of said groups may create additional offices to fulfill functions considered to be necessary. The Board of Directors shall select the appointees, who need not necessarily be active members of the Association, to fill such newly-created offices. The duties of these appointees shall not conflict with those of the officers herein described nor of the Executive Secretary.

SECTION 11. Officers of the Association, the Executive Secretary, the Editor of the Journal, Chairmen of the various commissions and committees and delegates to the American Medical Association and to selected medical meetings, shall submit an annual report of their activities to the Board of Directors at its interim meeting preceding the Fall session of the House

of Delegates, any one or all of which may be published in the Journal on order of said Board.

Delegates to the annual, interim or special sessions of the American Medical Association may submit their report to the Editor for immediate publication in the Journal of the Nebraska Medical Association, and shall appear before the House of Delegates and discuss significant deliberations and actions taken by the House of Delegates of the American Medical Association.

The reports of the respective councilors may be combined. The minutes of the meetings of the Board of Councilors shall be submitted to the House of Delegates. In no instance shall the House of Delegates require confidential details to be included in the report of the Board of Councilors.

CHAPTER X — BOARD OF DIRECTORS

SECTION 1. The Board of Directors shall be composed of the President, President-Elect, Immediate Past President, Secretary-Treasurer and three members elected at large. The Speaker and Vice-Speaker of the House of Delegates and the Chairman of the Board of Councilors shall be ex-officio members of the Board of Directors without the right to vote.

The Board of Directors shall exercise general supervision over the affairs of the Association, and fulfill such duties as devolve on directors of corporations and which are not otherwise delegated in these Bylaws.

The Board of Directors shall:

- (1) Have as its duty the guidance of the Association on questions of policy arising during intervals between meetings of the House of Delegates
- (2) Issue charters to component societies upon proper qualification
- (3) Be empowered to act on all matters arising at other times than during meetings of the House of Delegates
- (4) Establish and maintain the official headquarters of the Association
- (5) Present an annual budget to the House of Delegates
- (6) Pass on all recommendations for incurring expense; and advise in financial deliberations of commissions and committees
- (7) Acquire, hold, maintain and dispose of such moneys and property, personal and real, as may now be, or shall hereafter come into possession of the Association
- (8) Select and employ an Executive Secretary; and select appointees provided for in Chapter IX, Section 8, who need not be physicians or members of the Association
- (9) Determine all salaries
- (10) Require and hold the official bonds of such officers of the Association as is provided in these By-Laws, as well as of others in the employ of the Association who, in their judgment, should be bonded
- (11) Refer and otherwise dispose of business matters coming within its jurisdiction
- (12) Make recommendations to the Board of Councilors and the House of Delegates
- (13) Be responsible for the publication of the Journal of the Nebraska Medical Association, and supervise the advertising policy of all official publications; and select the Editor of the Journal

- (14) Fill vacancies occurring in any offices and in Delegates to the American Medical Association and their alternates, subject to the approval of the House of Delegates at its next regular session

SECTION 2. The Board of Directors may:

- (1) Select a bank or trust company to act as custodian of all or any part of the moneys, securities and deeds of the Association in place of the Secretary-Treasurer, and to act as agent of the Association in collecting any income therefrom
- (2) Appoint a bank or trust company, or a subsidiary organization or corporation may be established by the Association to act as trustees of any trust, foundation, or fund
- (3) Appoint additional custodians, or change existing custodians if in its opinion such additions or changes would be for the best interests of the Association

SECTION 3. At its first session following the Annual Session The Board of Directors shall organize itself. The President shall serve as Chairman, and the President-Elect shall serve as Vice-Chairman. The Secretary-Treasurer of the Association shall be the secretary of the Board of Directors by virtue of his office. The Board of Directors shall hold at least four meetings in each calendar year. Should a vacancy occur in the Board of Directors, the Board of Directors shall appoint a member to the Board of Directors, who shall serve the unexpired term, unless otherwise provided for in these By-laws. Whenever a physician is appointed to fill a vacancy as a member of the Board of Directors such member shall be eligible for consideration for election by the House of Delegates, but limited to serving no more than six consecutive years.

CHAPTER XI — BOARD OF COUNCILORS

Section 1. The Board of Councilors shall be composed of one duly elected councilor for each councilor district, the President, the President elect and the immediate past president of the Association. The Speaker and Vice Speaker of the House of Delegates shall be ex officio members without the right to vote. The term of office of each elected councilor shall be three years and the terms shall be staggered so that as nearly as possible one-third shall be elected each year. A councilor may not serve more than two consecutive terms. The initial term of office in each district shall be fixed by the Board of Directors.

Section 2. In cases where a Councilor District Society is active with reference to a Councilor District the Councilor shall be elected by the Councilor District Society. In all other cases each component society in each councilor district shall be entitled to nominate a councilor to act for such district. Said nomination shall be certified by the secretary of the component society and filed in the office of the Nebraska Medical Association at least 15 days in advance of the Annual Session of the Association. Election shall be determined by a majority vote of the members of the House of Delegates by secret ballot held in the manner provided in Chapter VIII of these Bylaws with respect to election of officers.

Section 3. The Board of Councilors shall (1) be the judiciary of the Association and shall hear and decide all questions of discipline affecting the conduct of members or of a component society; (2) act in an advisory capacity to the Board of Directors when requested by said Board; (3) fulfill such other duties as may be prescribed in the Bylaws or by direction of the House of Delegates or of the Board of Directors.

Section 4. The complaint procedure with respect to complaints against members or a component society shall be as follows:

- (a) A complaint may be made by any member of the Board of Councilors or by any other member of the Association or by any member of the public or by any component society against any member or component society by a written statement briefly setting forth the facts upon which the complaint is based. Said complaint shall be initiated when it is delivered to the office of the Nebraska Medical Association, Lincoln, Nebraska. Upon receipt of such complaint the Nebraska Medical Association headquarters shall acknowledge such receipt in writing to the complainant.
- (b) Upon receipt of such complaint the headquarters office of the Nebraska Medical Association shall send a copy thereof to the chairman of the Board of Councilors and a copy of the transmittal letter and of the complaint to the physician or physicians or component society involved.
- (c) The chairman of the Board of Councilors shall thereupon designate one or more of the following to investigate the complaint: the president of the County Medical Society of the physician involved, the district councilor of such physician's district or such other person or group, including a component society or its ethics council or mediation committee, if one exists, as the chairman determines to be appropriate.
- (d) The designated investigator shall consult with the physician and component society involved in the complaint and with the individual or individuals making the complaint and make such other investigation as is deemed appropriate. The headquarters office of the Nebraska Medical Association shall provide administrative assistance incident to such investigation. If funds are required for the investigation, the investigating agent or agency shall make a request for such funds to the headquarters office of the Nebraska Medical Association and funds to be provided, if any, for the investigation shall be subject to approval by the Board of Directors.
- (e) After completing the investigation the investigator shall advise the chairman of the Board of Councilors that the investigation has been completed. If the investigator and Chairman agree that the complaint is frivolous and without merit, the Chairman may dismiss the complaint without further action and all concerned parties shall be so notified.
- (f) If the complaint is deemed to have merit, the Chairman of the Board of Councilors shall convene a hearing before the Board of Councilors giving due notice to all parties involved. The investigator shall report the result of his investigation and his conclusions in writing to such convened meeting. If the person initiating the complaint or the investigator is a member of the Board of Councilors, he shall not vote in determining the Board's action.
- (g) The Board of Councilors by a majority vote shall then determine what action, if any, shall be taken with reference to the complaint and shall forward said decision to the headquarters office of the Nebraska Medical Association. Appropriate action shall include, but is not limited to, one or more of the following:

- (1) Dismissal of the complaint because of insufficient grounds.
- (2) Resolution of the controversy by agreement of

the physician and the person or persons making the complaint.

- (3) Resolution of the matter by agreement of the physician to change his conduct in relation to the matters under consideration.
 - (4) Specifications of conditions upon which continued membership in the Association will depend.
 - (5) Formal censure of the physician.
 - (6) Suspension of the physician from membership in the Association for a prescribed period.
 - (7) Termination of the physician's membership in the Association.
 - (8) Reference of the matter to the Commission on Medical Qualifications or the Board of Medical Examiners for appropriate action.
- (h) Promptly upon receipt of the decision of the Board of Councilors the headquarters office of the Nebraska Medical Association shall formally notify the physician and the complainant of the action of the Board of Councilors and of the last date for appeal. Said notification shall be given by registered or certified mail.
- (i) The physician or complainant involved, may appeal the matter to the Council on Professional Ethics. Appeal shall be by letter mailed or delivered to the headquarters office of the Nebraska Medical Association within 30 days after the decision of the Board of Councilors has been mailed to him by the headquarters office of the Nebraska Medical Association. In event of such appeal, said report, together with a report of the Board of Councilors concerning its proceedings and findings shall be submitted to the Council on Professional Ethics as promptly as possible after the appeal has been perfected.
- (j) The Council on Professional Ethics shall consider the matter on the written reports submitted and shall have authority to
- (1) Reverse the findings and decision of the Board of Councilors and direct that the complaint be dismissed because of insufficient grounds for a legitimate complaint.
 - (2) Refer the matter back to the Board of Councilors for additional investigation and inquiry and for further consideration.
 - (3) Modify the sanctions imposed by the Board of Councilors to the extent deemed appropriate by the Council on Professional Ethics. Said modification may be in the form of increasing or diminishing the censure or penalties provided by the Board of Councilors.
 - (4) Affirm the judgment and decision of the Board of Councilors. Such decision shall be made by majority vote and be promptly forwarded to the headquarters office of the Nebraska Medical Association.
- (k) The headquarters office of the Nebraska Medical Association shall promptly notify the physician involved, the person or persons making the complaint and the Board of Councilors of any action taken by the Council on Professional Ethics. Said notification shall be in the form of written notice mailed by registered or certified United States mail with sufficient postage attached as soon as practicable after receipt of notice of the decision of the Council on Professional Ethics.
- (l) Action of the Board of Councilors from which no appeal has been taken in the manner provided and

action of the Council on Professional Ethics following such appeal shall be final and shall be binding on the complainant, the Association and the physician involved from and after its publication to the parties involved. Referral to the Commission on Medical Qualifications of the State Board of Examiners in Medicine and Surgery will be made at this time if such is the recommendation.

Section 5. Charges calling for the impeachment of an officer, bearing the signatures of 200 active members, shall receive full hearing by the Board of Councilors. The accusers and the accused shall be permitted to present evidence and witnesses at the impeachment proceedings. Impeachment of an officer shall require two-thirds vote of all members of the Board of Councilors and to be effective such impeachment must be confirmed by a two-thirds vote of the members of the House of Delegates present at any duly constituted meeting of the House of Delegates.

Section 6. The Board of Councilors shall hold a Fall session prior to the Fall session of the House of Delegates for the purpose of organizing and outlining the work of said Board for the ensuing year. At this meeting it shall elect a chairman and a secretary to act until the next Fall session when the Board meets. During the annual session of the Association the Board of Councilors shall meet at such times as it deems appropriate and as nearly as possible so as not to conflict with scientific meetings. It shall keep a permanent record of its proceedings. Seven members shall constitute a quorum. Through its chairman, it shall make an annual report to the House of Delegates at such times as may be provided by the Bylaws or as may be requested by the Speaker of the House of Delegates.

Section 7. Each councilor shall be organizer and adviser for his own district. He shall visit as nearly as possible each component medical society in his district at least once each year and on such visits shall familiarize himself with the activities of said society and assist in an advisory capacity. He shall assist in organizing component societies where none exist; he shall assist in organizing physicians of two or more counties into a component society wherever appropriate. It shall be the duty of each councilor if so requested, to appoint honorary pallbearers who shall represent the Association at the burial of a member who has resided in his district.

Section 8. Should a councilor office be vacated by death, resignation or removal, the Board of Directors shall appoint an acting councilor who shall serve until the next meeting of the House of Delegates at which time a councilor shall be elected in the manner prescribed by the Bylaws. Such election shall be for the balance of the unexpired term in appropriate cases. Appointment by the Board of Directors shall be certified to the secretary-treasurer of the Association, by the Secretary of the Board whenever a physician is appointed to fill a vacancy as a member of the Board of Councilors. Such members shall be eligible for consideration for re-election in the manner provided by the Bylaws but limited to one additional term.

CHAPTER XII— COUNCIL ON PROFESSIONAL ETHICS

Section 1. The Council on Professional Ethics shall consist of five members. They shall be nominated by the President of the NMA and shall be elected by the House of Delegates for a term of five years. Their terms shall be staggered so a new term of one member

of said Board shall begin each year. Members may be re-elected for successive terms on the Council but may not be re-elected to serve if such member has served for two full terms immediately before such election. The president and president elect of the Association shall be ex-officio members of the Council without voting rights.

Qualifications. Members of the Council on Professional Ethics shall be chosen from the respected members of the profession who have demonstrated from time to time their interest in questions of an ethical nature and are outstanding examples of sobriety and good judgment in matters pertaining to the welfare of the profession and the interest of the public at large.

Seciton 2. The Council on Professional Ethics shall act as the appellate group to review judgments and decisions of the Board of Councilors in all disciplinary proceedings where appropriate appeals have been taken and shall act in such other matters as shall be delegated to such Council pursuant to the Bylaws or at the direction of the House of Delegates or the Board of Directors.

CHAPTER XIII — COMMISSIONS AND THEIR DUTIES

SECTION 1. Each commission of this Association shall consist of at least seven members appointed annually by the President-Elect. The President-Elect may also appoint members and nonmembers to commissions and ad hoc committees on an interim basis.

The president, the President-Elect, and the Secretary-Treasurer shall be ex-officio members of all commissions and committees, without the right to vote, except as otherwise provided in the By-Laws.

The House of Delegates may by motion create new, or abolish old commissions and committees at their discretion. Members of all commissions shall continue to serve until their successors are appointed.

SECTION 2. Members of all commissions and committees shall be appointed annually, except as otherwise provided. Subject matter to be considered by the commissions shall include that indicated in the Articles and By-Laws and such other matters as may be referred to, or of interest to, the commissions. The reports of all commissions shall be presented to the Board of Directors, together with their recommendations, and shall be referred to the House of Delegates for disposition at its next session.

In appointing commission members, geographic distribution shall be kept in mind in order to obtain broad representation. At the discretion of the President, upon the recommendation of the House of Delegates or upon the request of a commisison chairman, an ad hoc committee of five members shall be appointed by the President as requested. One member of the appropriate commission will be appointed to serve as chairman of the ad hoc committee made up of four additional non-commission members. The ad hoc committee will cease to exist when it has completed its task or at the close of the next Annual Session of the Association.

The Commissions of the Association shall be as follows:

A. The Commission on Association Affairs shall in and of itself, or through the utilization of ad-hoc committees:

(1) Concern itself with insurance contracts pertinent to the practice of medicine and of importance to the Association member. Serve as a liaison between the

members of the Nebraska Medical Association and all health insurance carriers. No member shall be eligible to serve on this commission, who is an officer or director of Nebraska Medical Service.

(2) Consider all suggestions made to revise or amend the Articles and By-Laws, compose the provisions for such amendments, and present them to the House of Delegates for adoption or revision, as provided in Article XV of the Articles and/or Chapter XVI of the By-Laws of the Nebraska Medical Association.

(3) Cooperate with and foster the relationship between the Auxiliary of the Nebraska Medical Association and the Nebraska Medical Association.

(4) Develop and implement programs for orientation and promotion of membership in organized medicine to the medical student, house officer and non-member physicians in Nebraska.

(5) Provide for the maintenance of a permanent record of house actions and organization policies for purposes of efficient and responsive referral. Be responsible for such other matters, as may be assigned to the commission by the House of Delegates or the Board of Directors.

B. The Commission on Clinical Medicine shall:

(1) Be responsible for creating a permanent Scientific Sessions Committee which shall be composed of physicians who have shown an interest in continuing medical education and who have indicated a desire to serve on said committee. At least one member of the committee shall have training and experience in professional education. At least one member shall be a member of the American Academy of Family Physicians. Members of the Committee shall be appointed by the President after recommendation for such appointment by the Commission on Clinical Medicine. Committee members shall be appointed for terms of three years. Terms shall be staggered to provide continuity in the committee. Members may be re-appointed for additional terms. One of the committee members who has served on the committee or its predecessor committee for at least two years shall be designated as Chairman. The Chairman shall be designated annually and may be reappointed from year to year. The Chairman shall be an ex officio member of the committee for at least one more year after termination of his position as Chairman. The Chairman in collaboration with the committee shall be directly responsible for all continuing medical education activities of the Association. One member of the committee shall be designated as Convention Chairman each year who will act as Chairman of the annual session for said year. The Convention Chairman may be the Chairman of the Committee or any other member of the Committee who has served for one year and will be a member of the Committee for at least one year after the annual session.

The Scientific Sessions Committee shall be responsible for the Annual Session of the Association, including selection of dates, and shall have charge of all proceedings at the meeting except those of (a) the House of Delegates, (b) the Board of Councilors and (c) the Board of Directors. It shall be obligated to arrange for the scientific programs at the Annual Session and to publish the program in the Nebraska Medical Journal immediately preceding the Annual Session and to issue supplemental programs to members and others by mail.

The Scientific Sessions Committee shall also be responsible for approving and providing accreditation for continuing medical education programs.

(2) The Commission on Clinical Medicine or its committees shall concern itself with all school athletic programs, and establish appropriate guidelines based on data obtained from physicians and school officials. Stimulate development of postgraduate programs in school athletics for physicians and school officials keeping them abreast of new advancements in the field.

(3) Concern itself with current matters and information relating to cancer and disseminate information to physicians and the public, as deemed appropriate.

(4) Concern itself with emergency medical service planning and operation, and disseminate information regarding emergency preparedness. Cooperate and consult with other agencies developing and publicizing programs and activities concerning emergency services.

(5) Concern itself with the field of geriatrics and accompanying problems, and recommend programs accordingly.

(6) Concern itself with problems in the field of maternal and child health, and provide current information to members of the Association, as deemed appropriate.

(7) Concern itself with current progress and problems of mental health, and keep the membership informed of such activities, as may be of interest in this field.

(8) Concern itself with matters relating to public and occupational health, and bring such information to the attention of the profession, as deemed appropriate.

(9) Concern itself with cardio-vascular problems and disseminate information relating thereto to physicians and the public.

(10) Concern itself with any other health problems the Commission deems appropriate.

C. The Commission on Governmental Affairs shall in and of itself, or through the utilization of ad-hoc committees:

(1) Develop and continually update a plan for medical service in Nebraska, seeking counsel and recommendation from all groups interested and involved in health care and its delivery.

(2) Serve as liaison with state governmental agencies to establish communication, as appropriate.

(3) Consider various governmental programs from the standpoint of the potential relationship the Association should have with these programs.

D. The Commission on Legislation and Legal Affairs shall in and of itself, or through the utilization of ad-hoc committees:

(1) Consider matters of a legislative and regulative nature both at the state and federal level, which would affect the practice of medicine.

(2) Serve as the legislative authority in behalf of the Association and provide for organizational input and testimony, when deemed appropriate.

(3) Provide advice and counsel in matters of a legal nature affecting Nebraska physicians.

E. The Commission on Medical Education shall in and of itself, or through the utilization of ad-hoc committees:

(1) Concern itself with medical education in Nebraska, serving as a liaison committee between the two medical schools of the state, concern itself with and make recommendation regarding postgraduate education for the physicians of the state.

(2) Concern itself with health education in the school system, including the study and evaluation of the teaching of health education in the elementary and secondary schools, and colleges in cooperation with key educators.

(3) Concern itself with creating the proper climate for communication between the physician and the clergyman that will lead to the most effective care and treatment of the patient.

(4) Foster the practice of medicine in rural Nebraska and cooperate with organized farm groups, as deemed appropriate.

F. The Commission on Public Affairs shall in and of itself, or through the utilization of ad-hoc committees:

(1) Collate and activate the joint purposes of the allied professions pertaining to the health of the people of the State of Nebraska.

(2) Be concerned with the ethics, responsibilities, standards, contractual relations, general policies and procedures relevant to medical practice in hospitals.

(3) Be responsible for the public relations activities carried on by the Association.

CHAPTER XIV — COMPONENT SOCIETIES

SECTION 1. County, district, house staff or student societies adopting principles of organization not in conflict with the Articles and By-Laws, and having complied with the conditions imposed by this chapter, upon application to the Secretary-Treasurer of this Association and with the approval of the Councilor of the District, and of the Board of Directors, shall receive a charter and become a component part of this Association.

A medical society shall be organized in every county of the state when practicable, and a charter issued thereto. Before a charter is issued to any component society, full and ample notice and opportunity to become a member shall be given to every qualified physician in its jurisdiction.

A councilor district medical society may be organized in each councilor district. Only members of chartered component societies in a district may be members of a councilor district society. Candidates for the office of Councilor of the respective councilor districts shall be nominated and elected as provided in Chapter XI of the By-Laws.

A charter of a component society may be revoked by the Board of Directors in all cases where it finds after a hearing by the Board of Councilors that the actions of the component societies are in conflict with the Articles and By-Laws and the society involved fails to bring its action into conformity with the Articles and By-Laws.

SECTION 2. The component society shall be responsible for the activation, supervision and consummation of all matters under its jurisdiction which pertain to its members and to the public health of the community. It shall encourage every qualified physician within its domain to become a member of the society.

It shall hold regular meetings at which scientific programs shall be presented. It shall encourage its members to do original research and post-graduate work.

SECTION 3. At the last regular meeting of the fiscal year preceding the Annual Session of the Nebraska Medical Association, each component society, or group of societies so organized, shall elect delegates and

alternates to represent it in the House of Delegates, as prescribed in Chapter VI, Sections 1, 2, and 3 of the By-Laws and in appropriate cases shall nominate a candidate for councilor of its district. The secretary of each component society, or group of societies so organized, shall send a list of such delegates and nominees to the Secretary-Treasurer of the Association, as prescribed in Chapter VI, Section 2, of these By-Laws.

SECTION 4. The secretary of each component society shall keep a roster of its members and of the non-affiliated registered physicians in his county, or membership area. The listing for each physician shall show the full name, address, college and date of graduation, date and number of Nebraska license, and such other information as may be deemed necessary.

On or before the first of March of each year, he shall send to the Executive Secretary and to the Councilor of his district a report containing, together with the above information, the names of all eligible physicians who have come into his area, and the names of all who have died or left the area during the preceding year. He shall remit membership dues to the Treasurer of the Nebraska Medical Association, as prescribed in Chapter II, Section 2, of these By-Laws, and he in turn shall remit to the treasurer of the American Medical Association the dues of that organization.

SECTION 5. Each component society shall be the judge of the professional and moral qualifications of its own members. A member who has been suspended or expelled from his component society may carry his appeal to the Council on Professional Ethics of this Association, and then, if necessary, to the Judicial Council of the American Medical Association.

In considering such appeals, the Council on Professional Ethics shall consider the matter on written reports and evidence, submitted by the component society and the members involved. Preceding every case of appeal, individual Councilors and the Board of Councilors shall make every effort to arrive at a compromise between the parties.

SECTION 6. A member in good standing in a component society who moves into another county, may transfer his membership to the component society into whose jurisdiction he moves.

Membership transfer to another component society shall not be official until the member is elected to membership by that society. Such transfer shall then be reported immediately to the Secretary-Treasurer of the Association.

A physician living near a county line, on permission of the society under whose jurisdiction he resides, may hold his membership in the component society whose place of meeting is most convenient for him to attend.

CHAPTER XV — THE JOURNAL

SECTION 1. The House of Delegates shall establish and maintain an official journal of the Nebraska Medical Association, which shall be called the Nebraska Medical Journal.

SECTION 2. The Journal shall be published monthly and mailed to each member of the Nebraska Medical Association who is in good standing, and on request, to all new and reinstated members, commencing with the first issue of the year in which dues are received in the office of the Secretary-Treasurer, provided that such copies are available. It may contain the scientific papers and proceedings of the Annual Session and minutes of the Board of Councilors and Board of Directors. It shall contain the minutes of the meetings of the House of Delegates, notices of regular and special meetings, advertising and such other matter as may be of interest to members. Editorials shall be given prominent place in the Journal.

SECTION 3. The advertising policy of the Journal shall be that of the State Medical Journal Advertising Bureau, subject to the approval of the Board of Directors.

Should there be any question as to the ethical nature of an advertisement, the Executive Secretary shall refer it to the Board of Directors, who by majority vote shall decide on acceptance or rejection.

SECTION 4. The Board of Directors shall establish the policies of the Journal and of the official publications of the Association. It shall select an Editor-in-Chief who is a member of the Association. He may appoint associate editors if needed.

The Board of Directors shall include a report of the activities of the Journal in their annual report to the House of Delegates at its fall session.

The Executive Secretary of the Association shall be the business manager of the Journal, and shall collect all money due the Journal and turn it over to the Secretary-Treasurer.

CHAPTER VI — RULES OF ORDER

Sturgis Parliamentary Procedure, shall govern the proceedings of all meetings of the Association, the House of Delegates, the Board of Directors, the Board of Councilors, and of any commission, committee, or other subdivision or group of the Association unless otherwise specifically provided in the Articles or Bylaws.

CHAPTER XVII — AMENDMENTS

These By-Laws may be amended at any regular session of the House of Delegates by a two-thirds vote of the members present, and further provided that the proposed amendment has been presented in writing in open meeting of the House of Delegates, and has laid on the table for one day. To be considered by the House the proposed changes in the By-Laws must have been presented to the Chairman of the Commission on Association Affairs not less than sixty days before the session at which they are to be presented.

CHAPTER XVIII — REPEAL

All Chapters and all Sections of all Chapters of the By-Laws of the Nebraska Medical Association, as said By-Laws existed up to and including the, are hereby repealed. General officers, delegates and committee members now in office shall continue their incumbency until their successors are duly elected or chosen as provided herein.

The Nebraska Medical Journal



Volume 62
January 1977 — December 1977

FRANK COLE, M.D.
Editor

KENNETH NEFF
Business Manager

NORFOLK PRtg. CO., NORFOLK, NEBR.

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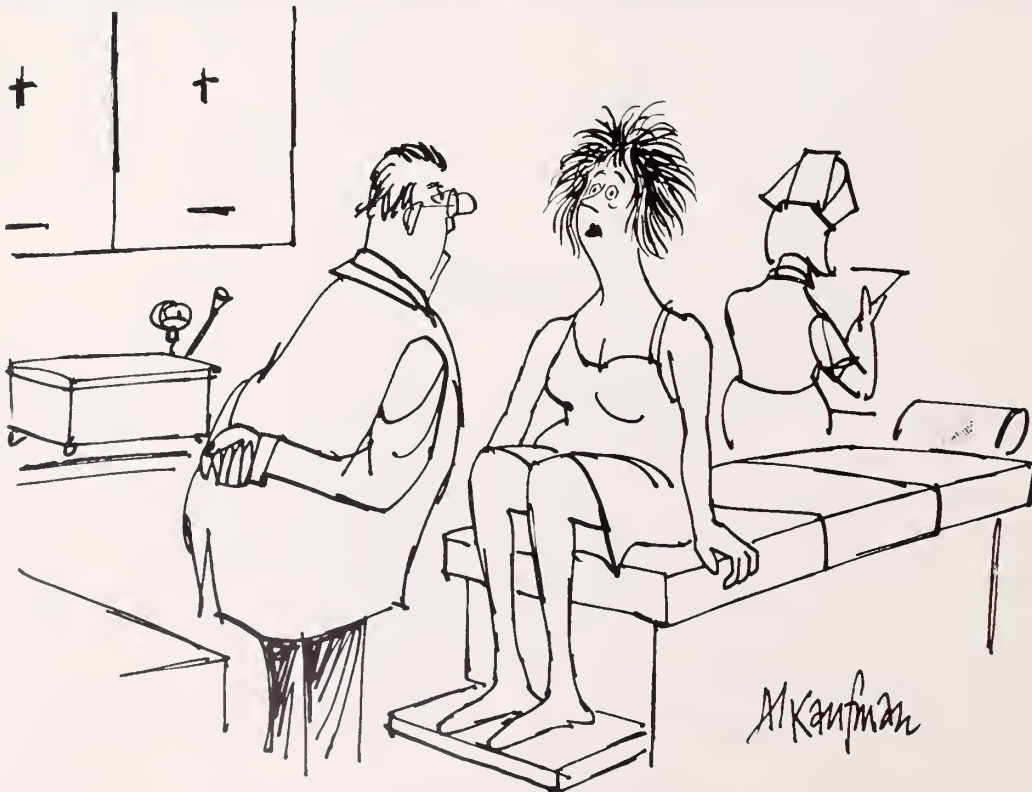
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ship has not been established clinically.

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